DOCUMENT RESUME

ED 448 343 CE 081 129

AUTHOR	D'Amico, Ronald; Kimball, Mary; Midling, Michael; Smith, Pamela L.; Bruno, A. Lee; Johnson, Michele L.
TITLE	Evaluation of the School-to-Work Out-of-School Youth Demonstration and Job Corps Model Centers. Final Report for the Job Corps Model Centers. Research and Evaluation Report Series.
INSTITUTION	Brandeis Univ., Waltham, MA. Center for Human Resources.; Social Policy Research Associates, Menlo Park, CA.
SPONS AGENCY	Employment and Training Administration (DOL), Washington, DC. Office of Policy and Research.
REPORT NO	DOL-ETA-RERS-00-E
PUB DATE	2000-07-00
NOTE	270p.; Ronald D'Amico and Pamela L. Smith were co-principal investigators.
CONTRACT	U-6642-8-00-88-30
AVAILABLE FROM	For full text: http://wdr.doleta.gov/opr/fulltext/document.asp?docn=6086.
PUB TYPE	Reports - Evaluative (142)
EDRS PRICE	MF01/PC11 Plus Postage.
DESCRIPTORS	Adult Basic Education; Competency Based Education; Disadvantaged; *Education Work Relationship; Employment Potential; High School Equivalency Programs; Integrated Curriculum; Job Skills; *Out of School Youth; Postsecondary Education; Program Design; Program Implementation; Secondary Education; *Work Experience Programs
IDENTIFIERS	*Job Corps

ABSTRACT

This report presents findings regarding design and implementation of school-to-work (STW) efforts in Job Corps Model Centers. Following an introduction, Chapter two argues that Jobs Corps constitutes a natural context for implementing STW systems because its traditional practices to some degree provide a solid foundation on which to lay STW principles. Chapter three addresses these two keys to implementing STW in the Job Corps context: need for a clearly articulated vision and consistency with the vision in the larger STW context. Chapter four examines the model centers' efforts to build the organizational structure necessary to implement STW reforms. Chapter five discusses how school-based learning (SBL) evolved and examines STW's effect on structure and content of classroom training and the model centers' success in integrating classroom training to replicate STW best practice methods. Chapter six addresses the model centers' implementation of work-based learning principles and practices, implementation challenges, and effective practices and implementation strategies. Chapter seven discusses areas related to connecting activities: strategies to connect worksite and SBL; staff development and training; linkages for the post-program period; and STW stakeholders and their roles. Chapter eight explores evolution and sustainability of STW efforts at the model centers. Chapter nine highlights challenges model centers faced in sustaining a dynamic, evolving STW initiative. Appendixes contain 30 project profiles and 21-item bibliography. (YLB)

Reproductions supplied by EDRS are the best that can be made
from the original document.

CE

Evaluation of the School-to-Work— Out-of-School Youth Demonstration and Job Corps Model Centers: Final Report for the Job Corps Model Centers

Research and Evaluation Report Series 00-E

U.S. Department of Labor
Employment and Training Administration

2000

ED 448 343

CE081129

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)
☒ This document has been reproduced as received from the person or organization originating it.
☐ Minor changes have been made to improve reproduction quality.
• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

2

BEST COPY AVAILABLE

Evaluation of the School-to-Work—Out-of-school Youth Demonstration and Job Corps Model Centers: Final Report for the Job Corps Model Centers

U.S. Department of Labor
Alexis M. Herman, Secretary

Employment and Training Administration
Raymond L. Bramucci, Assistant Secretary

Office of Policy and Research
Gerard F. Fiala, Administrator

2000

U.S. Department of Labor

Employment and Training Administration
200 Constitution Avenue, N.W.
Washington, D.C. 20210

Dear Job Corps Colleagues:

Job Corps is committed to and working toward becoming an integral part of a system through which our students can receive supportive services and training from employers and other community service providers. In short, we will integrate Job Corps into the larger workforce development system by creating a student-centered Career Development Services System (CDSS). However, community support will only be successful to the extent Job Corps centers thoughtfully assess and meet student employment needs by providing quality training and support services. Key to raising the quality of Job Corps employment training is the system-wide application of School-to-Work principles. CDSS can not be fully successful without ensuring all student training and services are grounded in School-to-Work principles, which include fostering career awareness, establishing high academic and skill standards, integrating academic and vocational training and incorporating all aspects of an industry into training.

This *Evaluation of the School-to-Work Out-of-School Youth Demonstration and Job Corps Model Centers Final Report* clearly spells out the huge challenges we face in changing the way we do business in our classrooms, shops, communities, as well as the liaison coordinated and maintained with the business communities. We as Job Corps leaders must, as the report states, "galvanize" support for School-to-Work by ensuring Center Directors and Senior Center Staff understand and support the implementation of STW principles. We must make the tough decisions needed to find new resources and reconfigure existing ones on our centers and in our communities, including staff training, transportation, curriculum development, mentoring and other support services. As a part of this transformation, we must change the way learning takes place by breaking down the cultural and functional barriers between academic and vocational instructors, centers and communities, School-to-Work Coordinators and Business Community Liaisons, and most important, youth and adults. The result of this endeavor must be Job Corps' ability to measure student success resulting from new teaching methods that create a richer learning environment both on Job Corps centers and in their communities. We must continue to improve our staffs' ability to keep pace with the changing workplace by providing training for our instructors, worksite supervisors and other support services providers.

I want to encourage every Job Corps leader to read and begin to apply the wealth of ideas this report provides and to work with me to develop a clear vision of what the full integration of STW principles can mean to the lives of our students.

Sincerely,

Richard C. Trigg
National Director
Job Corps

Evaluation of the School-to-Work Out-of-School Youth Demonstration and Job Corps Model Centers

Final Report for the
Job Corps Model Centers
July 2000

Submitted to:
U.S. Department of Labor
Employment and Training Administration
200 Constitution Avenue, NW
Room N-5637
Washington, D.C. 20210

Prepared by:

Social Policy Research Associates
Ronald D'Amico, Project Director
Mary Kimball
Michael Midling

and
Center for Human Resources, Brandeis University
Pamela L. Smith, Co-Principal Investigator
A. Lee Bruno
Michele L. Johnson

DOL Contract No. U-6642-8-00-88-30

CONTENTS

LIST OF ABBREVIATIONS

EXECUTIVE SUMMARY

I. INTRODUCTION I-1
  BACKGROUND I-1
    Reasons for School-to-Work Initiatives I-1
    What Should School-to-Work Entail? I-4
    Adapting the Model to the Needs of Out-of-School Youth I-7
  THE SELECTION OF THE JOB CORPS MODEL CENTERS I-10
  DATA COLLECTION AS PART OF THE EVALUATION I-11
  CONCEPTUAL FRAMEWORK I-17
    Management and Partnerships I-17
    Components of Well-Developed School-to-Work Systems I-21
    Outcomes I-24

II. THE STARTING POINT FOR BUILDING STW SYSTEMS IN THE JOB CORPS CONTEXT II-1
  JOB CORPS AS A NATURAL CONTEXT FOR STW II-1
  TRADITIONAL JOB CORPS PRACTICES THAT IMPEDE STW IMPLEMENTATION II-7
  CONCLUSION II-9

III. THE SCHOOL-TO-WORK VISION III-1
  THE VARIATIONS III-2
    Variation 1: Shared vision consistent with overarching school-to-work principles III-2
    Variation 2: Shared vision, not fully consistent with the school-to-work vision III-5
    Variation 3: Shared vision consistent with STW among leadership, but not fully established with other Center staff III-6
    Variation 4: Vision not commonly shared and not consistent with the school-to-work vision III-7
  CONCLUSION III-9

IV. SCHOOL-TO-WORK SYSTEM BUILDING IV-1
  GALVANIZING SUPPORT FOR STW IV-1
    Where Is the STW Initiative Housed? IV-2

Structures for Management and Oversight IV-5
Internal Partnerships that Support the STW Initiative IV-6
STARTING THE STW INITIATIVE AT THE MODEL CENTERS IV-8
Use of Special STW Funds IV-8
Initial Steps IV-9
STAFFING ARRANGEMENTS FOR THE STW INITIATIVE IV-12
CONCLUSION IV-14

V. SCHOOL-BASED LEARNING V-1
THE STRUCTURE OF LEARNING V-1
Changes to the Structure of Academic Classes V-2
Removing Barriers to the Integration of Academic and Vocational Instruction V-3
THE CONTENT OF LEARNING V-5
Increased Emphasis on Employability Skills V-6
Changes in the Content of Vocational Curricula V-9
THE METHODS FOR LEARNING V-10
Adopting New Teaching Styles V-11
Adopting New Instructional Materials V-18
CHALLENGES TO IMPLEMENTATION V-21
Curriculum Integration V-23
Instructional Strategies V-26

VI. WORK-BASED LEARNING VI-1
RECRUITING EMPLOYERS VI-1
THE STRUCTURE FOR LEARNING VI-5
Types of Work-Based Learning Activities VI-5
Types of Worksites VI-8
Schedule and Sequence VI-10
THE CONTENT OF LEARNING VI-14
Skills Being Taught VI-15
Training Plans, Achievement Records, and Assessment VI-19
METHODS FOR LEARNING VI-19
CHALLENGES TO IMPLEMENTATION VI-23
Logistics VI-24
Staffing Consistency VI-26
Student Readiness VI-27
Developing a Common Understanding VI-27

7

VII. CONNECTING SYSTEM COMPONENTS VII-1
STRATEGIES TO CONNECT WORKSITE AND SCHOOL-BASED LEARNING VII-2
STAFF DEVELOPMENT AND TRAINING VII-5
  Regional Workshops VII-6
  Local Partnership and State-Sponsored Workshops VII-7
  In-House and other Local Training Efforts VII-8
  Challenges and Strategies for Further Staff Development VII-9
LINKAGES FOR THE POST-PROGRAM PERIOD VII-11
  Job Placement Services VII-12
  Support Services for the Post-Program Period VII-13
  Creating Living Situations that Accommodate Work and School VII-14
  Linkages with Post-Secondary Institutions VII-15
  Developing Financial and Other Transition Plans VII-16
STAKEHOLDERS AND THEIR ROLES VII-17
  Employers VII-17
  Non-Employer Stakeholders VII-19

VIII. EVOLUTION AND SUSTAINABILITY VIII-1
CHANGES IN SUPPORT OF STW VIII-1
  New Staffing Patterns VIII-2
  New Activities VIII-5
  New Structures for Learning VIII-9
  New Partnerships VIII-11
FUTURE PLANS FOR STW VIII-13
  Future Plans for Classroom-based Learning VIII-14
  Future Plans for Work-based Learning VIII-15
  Future Plans for Connecting Activities VIII-15

IX. SUMMARY AND CONCLUSIONS IX-1
CHALLENGES AND PROMISING PRACTICES IX-2
  Challenge #1: Galvanizing Support Around STW IX-3
  Challenge #2: Finding Adequate Resources to Support Change IX-7
  Challenge #3: Changing the Way Learning Takes Place in the Classroom IX-9
  Challenge #4: Ensuring that Work-based Learning is Content Rich and is Linked to School-based Learning IX-12
A FRAMEWORK FOR UNDERSTANDING CHANGE IX-14
  Skills IX-15

Incentive IX-17
Resources IX-18
Action Planning IX-18
Evaluation IX-19
WAYS IN WHICH THE NATIONAL OFFICE MIGHT SUPPORT CHANGE IX-21

APPENDIX: PROJECT PROFILES

GADSDEN JOB CORPS CENTER: GADSDEN, AL
FRED G. ACOSTA JOB CORPS CENTER: TUCSON, AZ
INLAND EMPIRE JOB CORPS CENTER: SAN BERNARDINO, CA
COLLBRAN CIVILIAN CONSERVATION CORPS: COLLBRAN, CO
CONNECTICUT JOB CORPS CENTER: NEW HAVEN, CT
POTOMAC JOB CORPS CENTER: WASHINGTON, D.C.
ATLANTA JOB CORPS CENTER: ATLANTA, GA
DENISON JOB CORPS CENTER: DENISON, IA
LORING JOB CORPS CENTER: LIMESTONE, ME
WOODSTOCK JOB CORPS CENTER: BALTIMORE, MD
FLINT GENESEE JOB CORPS CENTER: FLINT, MI
HUBERT HUMPHREY JOB CORPS CENTER: ST. PAUL, MN
BATESVILLE JOB CORPS CENTER: BATESVILLE, MS
GULFPORT JOB CORPS CENTER: GULFPORT, MS
EXCELSIOR SPRINGS JOB CORPS CENTER: EXCELSIOR SPRINGS, MO
TRAPPER CREEK CIVILIAN CONSERVATION CORPS: DARBY, MT
EDISON JOB CORPS CENTER: EDISON, NJ
ROSWELL JOB CORPS CENTER: ROSWELL, NM
CASSADAGA JOB CORPS CENTER: CASSADAGA, NY
OCONALUFTEE CIVILIAN CONSERVATION CORPS: CHEROKEE, NC
KITTRELL JOB CORPS CENTER: KITTRELL NC
DAYTON JOB CORPS CENTER: DAYTON, OH
TULSA JOB CORPS CENTER: TULSA, OK
TONGUE POINT JOB CORPS CENTER: ASTORIA, OR
ANGELL JOB CORPS CENTER: YACHATS, OR
PHILADELPHIA JOB CORPS CENTER: PHILADELPHIA, PA
BARRANQUITAS JOB CORPS CENTER: BARRANQUITAS, PR
DAVID L. CARRASCO JOB CORPS CENTER: EL PASO, TX
GARY JOB CORPS CENTER: SAN MARCOS, TX
COLUMBIA BASIN CIVILIAN CONSERVATION CORPS: MOSES LAKE, WA

BIBLIOGRAPHY

ACKNOWLEDGEMENTS AND ATTRIBUTIONS

This Report was prepared by Social Policy Research Associates (SPR) in collaboration with Brandeis University's Center for Human Resources (CHR). The project was led by Ronald D'Amico, of SPR, who serves as the Project Director, and Pamela L. Smith, of CHR, who serves as co-principal investigator. In addition to these two, authors of this report include Mary Kimball and Michael Midling, of SPR, and A. Lee Bruno and Michele L. Johnson, of CHR.

The authors gratefully acknowledge the contributions of the key respondents associated with the 30 Job Corps Model Centers, including the programs' administrators, instructors, employers and worksite supervisors, and program participants, who gave generously of their time and graciously answered our questions frankly and sincerely.

We also wish to acknowledge the contributions of the other members of our research team who helped in the data collection and analysis, including: Anne Adams, Lawrence Bailis, Constance Davis, Lisa A. LaCava, Susan Lanspery, Melissa Lazarin, Heather Lewis-Charp, Rosalinda Soliz, Sukey Soukamneuth, and Andrew Wiegand. Each of these researchers made important contributions that we drew on heavily in writing this report. Sukey Soukamneuth also provided valuable comments on an early draft of the manuscript.

Finally, we thank staff from the U.S. Department of Labor, who provided advice and encouragement throughout the project. These individuals include Daniel Ryan, our project officer, Janet Moore and Donna Kay, the former and current Job Corps National STW Coordinators, and John Chowning, of the Job Corps National Office.

LIST OF ABBREVIATIONS

ACT	Advanced Career Training
BAM	Building and Apartment Maintenance
CMI	Computer-Managed Instruction
GED	General Educational Development test
ISS	Individual Service Strategy
JACS	Joint Action in Community Service
JCC	Job Corps Center
JTPA	Job Training Partnership Act
OEP	Occupation Exploration Program
OSY	Out-of-school youth
PBL	Project-based learning
P/PEP	Progress and Performance Evaluation Panel
PRH	Job Corps Policy and Requirements Handbook
SBL	School-based Learning
SCANS	Secretary's Commission on Achieving Necessary Skills
SST	Social Skills Training
STW	School-to-Work
STWOA	School-to-Work Opportunities Act of 1994
TAR	Training Achievement Record
VST	Vocational Skills Training project
WBL	Work-based learning
WEP	Work experience program
WIA	Workforce Investment Act of 1998
WICS	Women in Community Service
WoW	World-of-Work training

EXECUTIVE SUMMARY

This report has been prepared as part of a contract awarded by the U.S. Department of Labor (DOL) to conduct an Evaluation of the School-to-Work Out-of-School Youth (OSY) Demonstration and Job Corps Model Centers. The demonstration programs and Model Centers are alike in attempting to incorporate and adapt school-to-work principles in their services to out-of-school youth. This summary reflects the findings reported in the Final Report for the component of the study focused on the Job Corps Model Centers; as such, it presents a discussion of the design and implementation of STW principles in the Job Corps context, including the Model Centers' objectives and strategies. A companion report addresses similar issues with respect to the OSY Demonstration.

BACKGROUND

School-to-work (STW) represents a potentially important improvement in the nation's efforts to fully prepare its young people for successful and productive careers. By teaching academic skills in a career context using active learning methods, youth may become more meaningfully engaged in the process of learning, develop a broader array of SCANS skills and competencies, and see how the skills they are acquiring can be applied. Moreover, including work-based activities makes it possible for them to learn skills in authentic, real-world settings, while familiarizing them with the demands and rigors of the work world. Based on this promise, STW partnerships around the nation have been responding to the challenges and opportunities afforded by the School-to-Work Opportunities Act of 1994 by revamping curricula and pedagogy. This Act authorizes the expenditure of federal dollars to support local partnerships in their efforts to promote context-rich instruction and integrate classroom with workplace learning.

Typically, the focal point for these efforts has been the secondary school. As a consequence, too often high school dropouts and recent graduates with weak skills, who are disconnected from the traditional academic environment, are left out of these emerging systems. Recognizing the promise that STW holds for invigorating learning for young people who have had difficulty in a traditional school environment, DOL's National Office of Job Corps has encouraged the adoption of STW principles throughout the Job Corps system. The Model Centers were funded to be forerunners in this effort.

THE MODEL CENTER SELECTION PROCESS

In the spring of 1997, DOL issued an announcement encouraging Job Corps Centers to submit an application for designation as a Model Center. In developing criteria to select the awards, DOL decided that the number of Model Centers it would designate within each region should be proportionate to the regions' number of Job Corps Centers in operation. Beyond that, in concert with the Job Corps National Office, DOL Regional Offices made clear that they were looking for evidence that those applying for Model Center status would implement high-quality school-to-work principles, including school-based and work-based learning, and connecting activities. After the review process, awards were made in the summer of 1997 to 30 Centers, with each receiving an increase in their operating contract of approximately $60,000 for each of two years. The completion of the grant period was thus the summer of 1999.

To assist Centers in their ability to develop innovative designs, DOL provided a number of resources for technical assistance, including issuing a *School-to-Work Technical Assistance Guide* and making available to Model Centers on-site visits by trainers who are experts in school-to-work implementation. To clarify its expectations, the National Office also issued various discussion papers and documents, including "Characteristics of a Comprehensive STW System in Job Corps." These indicators are fully consistent with high-quality STW principles and include guidelines relating to:

- System management. All Center administration and staff should share a common understanding of STW and should participate in developing a plan that institutionalizes STW throughout Center operations.
- School-based learning (SBL). School-based instruction should emphasize the integration of curricula across academic and vocational content areas, relate classroom experiences to the realities of the workplace, emphasize problem-solving and communication skills, and make extensive use of hands-on tasks and project-based learning.
- Work-based learning (WBL). Centers should develop worksites that provide a range of quality learning experiences that are coordinated with learning that occurs on Center, worksites should we well monitored, learning gains should be documented, and qualified instructors and mentors should be available to assist students.
- Connecting activities. To help the above components cohere, Centers should provide adequate professional development and training for school-based and worksite instructional staff, involve employers in a range of activities, develop strong external partnerships (including with State and local STW systems), and promote post-secondary education and training.

THE IMPLEMENTATION EXPERIENCE

School-to-work represents an important and bold initiative that, if carried out as the National Office envisions, can transform the way learning takes place at Job Corps Centers nationwide. However, full-scale implementation of STW principles and practices is certainly a journey rather than an event; the sorts of complex changes being undertaken surely cannot occur overnight, but will of necessity entail a strong and clear focus on goals and objectives, a commitment of adequate resources, a coherent and well developed action plan, and constant fine-tuning of efforts over an extended period of time.

As a group, the Model Centers made important progress along this path and have come about as far as might have been reasonably expected over a two-year period, given the constraints and challenges that STW implementation posed. Overall, almost all Centers that we studied made substantial changes in the way they prepare their students for work or further education or training. However, their efforts were uneven. In general, most Centers made a greater degree of progress in developing work-based learning opportunities for their students and establishing connecting activities, but made substantially less progress in transforming school-based learning.

The Starting Point for Change

In implementing STW principles, Job Corps needs to revamp some of its established practices that are to some degree inimical to STW. For example, Job Corps has traditionally been characterized by sharp divisions between academic and vocational skills instruction. Thus, in most Centers, vocations and academics constitute separate "departments," each with a prescribed curriculum. To the extent that Centers adhere to this formula, the integration of learning is made difficult. As a consequence, academic and vocational instructors typically do not engage in joint planning, nor do they coordinate lesson plans to any appreciable degree. Indeed, following the prescribed curricula, typically no systematic effort is made to craft the youths' academic instruction around themes drawn from career choices, nor are vocational curricula explicitly designed to teach in context an array of academic and SCANS skills that are important for young people to learn.

The above highlights some of the important changes that must occur for STW to take root. However, in many ways Job Corps is a very natural context for STW implementation, because it has long emphasized components that are considered critical elements for strong STW systems. For example, shortly after they arrive on Center, all students are provided with career assessment and counseling—explicitly identified as school-based learning activities in the STWOA—to help them identify their career interests. These efforts typically entail formal testing, but also enable new enrollees to "shadow" fellow students in their vocational classes, to help them get a real feel for what pursuing various vocational areas will be like. On-going assessment and counseling, also a school-based activity, are also long-standing hallmarks of Job Corps, as all students receive regular feedback on their progress in both academic and vocational courses and periodic formal reviews.

Job Corps also emphasizes the teaching of general employability skills, consistent with the STWOA's mandate that instruction in general workplace competencies should not be ignored. Thus, social skills training has long been a required feature of the standard Job Corps curriculum. Other instructional strategies emphasized by STW's proponents—such as using active learning methods, integrating academic and vocational learning, and providing exposure to the work world—also have their analogues in Job Corps. For example, vocational skills training (VST) provides an example of the way in which project-based learning can be used as an instructional tool, and Training Achievement Records (TARs), used in Job Corps to guide vocational skills training, represent an adherence to competency-based instruction that integrates (to some degree) the teaching of academic and vocational skills. Through the work experience program (WEP) Job Corps can claim a history of providing its students with exposure to the real work world, and it demonstrates as well Job Corps's efforts to engage the employer community. Finally, Job Corps has well-developed mechanisms for providing students with placement assistance, considered by the STWOA to be an essential connecting activity.

The above observations are not meant to imply that Job Corps is "already doing STW," a claim that some of the respondents we spoke with made a bit too freely. However, they do suggest that some component pieces are already in place. What remains is for Job Corps Centers to (1) embellish and refine these pieces so that they attain their true potential in a STW context, and (2) pull the various pieces together to form a cohesive and integrated system for learning that affects all students.

The Vision for Change

The National Office recognized that Job Corps was in some sense a natural laboratory for change, for the reasons noted above, and it is justifiably proud of the strong foundation on which STW reform can build. However, it also appreciates that modifying curricula and revamping Center-wide policies and practices consistent with STW is a tremendous challenge. Indeed, the National Office emphasized that STW should not be viewed as just another program, or something that should be "added-on" to existing Center services. Instead, it was to entail wholesale reform in the way learning takes place.

About one-third of the Centers understood this message, and in these cases Center administrators and staff came to adopt a vision of what needed to be accomplished that was fully consistent with sound STW principles and practices. This clear vision provided a steady focus that encouraged balanced development and implementation across all three STW components, although sometimes obstacles of various sorts (e.g., lack of resources, logistical difficulties) prevented progress from being as rapid as might have been desired.

Approximately 50% of the Centers demonstrated only a partial understanding of what STW should entail. In some of these cases, Center management and staff came to understand STW as consisting primarily or exclusively of work-based learning. In these instances, mobilization focused on recruiting additional employers and transforming the traditional work experience program (WEP) into enriched learning opportunities. While good quality worksite learning did often result, this approach ignored the full potential of STW as a system linking school-based and work-based learning and paid scant attention to efforts to transform school-based curricula, especially in so far as academic learning was concerned.

Another group of Centers in this category was characterized by a sharp dichotomy in the maturity of the vision across different levels of the organization. In these cases, persons in key Center leadership positions (e.g., the Center Director or the STW Coordinator) would hold a well developed sense of what STW should entail, but this view was not widely shared within the organization. This occurred either because the leaders' vision was not clearly articulated, because professional development for staff was inadequate, or because instability in key leadership positions (due to staff turnover) made it difficult for the more complete vision of STW to take root. Thus, in this variant, Center leaders would understand that STW should entail true structural reform, but, typically, staff would hold a narrower vision of STW as consisting solely or primarily of work-based learning. Academic instructors in particular would come to feel left out or unsure of their role.

Finally, just over 15% of the Model Centers lack an understanding of STW or of the sorts of changes that they have been called on to make. Typically, these Centers recognize that Job Corps intrinsically includes components that have been identified with STW (such as career counseling and work experience), and this confuses them with respect to how STW is different. Thus, Centers in this variation often focus on expanding their work experience programs by recruiting new employers, but do not understand how work-experience should be transformed into work-based learning, let alone how it should be integrated with what goes on in the classroom.

This typology reveals that staff in very many of the Centers—in fact, the majority of those in all but the first category—implicitly or explicitly equated STW with work experience or work-based learning. This stance seemed to derive from the fact that, when they were faced with confusion or uncertainty about what STW entailed, it was easiest for them to fall back on something that was familiar.

This misunderstanding, once firmly rooted, was hard to change. Thus, there was some maturing of the Centers' vision of STW over time (e.g., between the first and second rounds of site visits), but the change was not dramatic. In fact, the proportion of Centers in the highest category—those with the most complete vision of STW—remained about the same over time. Moreover, there was quite a lot of consistency in the composition of this category over the two years of our study (although a few Centers that were initially in this category dropped into one of the lower categories, usually because of excessive staff turnover, while a few Centers in a lower category moved up as a result of a deepening understanding arrived at through technical assistance and professional development). In general, then, it could be said that Centers either got the message to begin with, or failed to ever do so. Nonetheless, there was substantial movement out of the lowest category—those without even a partial understanding of STW among either Center leaders or staff—reflecting real progress over time. In other words, many more Centers are starting to implement new practices consistent with STW, although their vision may be incomplete.

STW System Building

Among the steps that almost every Model Center took in launching its STW initiative was to use most of their special funding to hire a STW Coordinator, as DOL expected them to do when it awarded the special funding. Typically, these individuals devoted the major portion of their time to WBL activities, in keeping with the vision that most Centers had that equated STW with work activities. Thus, the Coordinators focused on recruiting employers to provide job shadowing or internship opportunities, matching students to the available worksites, and monitoring students' progress once they were placed in work-based learning assignments. They usually spent much less time on school-based or connecting activities, such as working to modify academic or vocational curricula. Centers also used their special funds to purchase computers or books and other resources, send staff to conferences or workshops on STW, and hire part-time drivers to transport students to their WBL worksites.

Also reflective of the vision that many Centers had of STW, the initiative was housed in either the Center's Placement or Vocations Departments in about one-half of the Model Centers. If the initiative was in Placement, it reflected the Center's conception of STW as providing a way of easing students' transition out of Job Corps, and perhaps as a vehicle for helping the Center's placement rates; if it was housed in Vocations, it often suggested the tight link drawn between STW, WBL, and vocational skills training. Other Centers placed the STW initiative within the administration department, which often (but not always) indicated that STW was given a higher priority within the Center and was viewed as representing a holistic approach to learning. Where the initiative was housed seemed to have implications for how it came to be perceived by Center staff. If it was in the Vocations Department, for example, academic instructors demonstrated less buy-in and seemed to believe that STW was something that did not apply them.

Yet achieving buy-in throughout the Center is critical, because implementing change consistent with STW requires the ability to coalesce broad internal partnerships around that goal. STW Coordinators had mixed success in forging such partnerships. Where they were successful in doing so, it proved to be critical for them to have the strong support and backing of Center leadership, especially the Center Director. In the absence of this, coordinators often had limited authority or autonomy.

Related to their efforts to establish internal partnerships, some Centers established advisory bodies to help guide the STW initiative. Usually their purview was quite limited and involved reviewing which students were ready for WBL. However, in about one-third of the Centers other structures emerged, including STW management or steering committees or, in a few cases, curriculum development committees. The fact that these structures were not more widespread indicates how difficult it was in many places for STW to garner strong Center-wide support. Even less common were efforts to involve students in planning for STW in a formal way.

School-Based Learning

Many respondents indicated that modifying classroom-based learning represented the most challenging aspect of STW. Although many Model Centers have made efforts to introduce new classroom materials and instructional strategies to reflect STW principles, for the most part these changes have not been substantial.

Among the strategies adopted by some Centers was modifying the structure of classroom learning, by changing the normal structure of the school day. For example, a few Centers added a new class period, specifically devoted to applied academics. A small number of other Centers instituted block scheduling, which entailed lengthening the normal one-hour class periods to two hours, to facilitate the use of active teaching methods. Other Centers introduced structural changes to help break down traditional barriers between academic and vocational departments. For example, one Center adopted an "ed-tech" model, whereby academic and vocational instructors would be assigned to teams; team members would be located in a single building and would work together to provide instruction to students. Each academic instructor teaches all academic subjects to the youth in the trade to which the instructor is assigned.

A related approach to facilitating the interchange between academic and vocational instructors involved grouping staff into pods or clusters. Not as far-reaching as the approach described above, the clusters were designed as planning bodies and were given regular time each week to develop integrated curricula and discuss ways in which STW could help students.

To some degree, the content of learning was influenced by the STW initiative (as well as related initiatives promoted by the National Office of Job Corps). Thus, the development of employability skills became a major focus during the study period, and Centers were developing strategies to ensure that these skills were continually being reinforced throughout the students' stay on-Center. As part of the new emphasis on employability skills, social skills training (SST) was taken out of the dorms, where it had previously been taught, and was now being taught in either vocational or academic classes, or sometimes in separate class periods. A more dramatic strategy for emphasizing employability skills occurred in a few Centers that transformed one or more of their vocational classes to simulate worksites. In these settings, instructors ran their classes as a pseudo-business and students were treated like employees.

In some cases, the content of vocational skills instruction was also modified. These changes were brought about by the closer involvement of employers, either as providers of work-based learning or through their participation on employer advisory councils. Through this involvement, TARs were being updated and new equipment or techniques were introduced.

Efforts to modify teaching methods in response to STW were also very much in evidence. Although vocational instructors have traditionally used active learning methods—learning by doing, working in teams, etc.—during the study period some academic instructors also moved to use more interactive teaching styles, in contrast to the reliance on workbooks or computer-aided instruction, which had been the norm. Thus, in some cases peer teaching or team teaching was introduced. Some Centers also made greater used of project-based learning or service-learning. These can be very effective active learning methods in a STW context, although often times the connection to STW was not recognized and, hence, the learning potential of these teaching strategies was not developed to the fullest.

Centers also adopted new instructional materials, such as new applied academics exercises and workbooks. In some cases, these materials were purchased from a vendor, and in other cases they were developed by teams of instructors, such as the clusters described above. In either case, the materials usually constituted "add-ons" or supplemental materials that were used in academic classes in addition to the regular workbooks or other traditional materials.

In general, new instructional materials and methods represented piecemeal efforts and almost nowhere took the form of far reaching substantive changes to classroom learning. Nonetheless, many Centers are committed to making further progress in the years ahead, and have established curriculum development committees or other bodies to lead these efforts.

Work-Based Learning

Nearly all Centers worked aggressively during the grant period to expand work-based learning (WBL) opportunities for students. Given this, a top priority was developing adequate numbers of high quality worksites. This task usually fell to the STW Coordinators, who utilized a number of strategies to recruit employers, including attending job fairs, hosting banquets or "get acquainted" meetings on Center, and drawing on the Center's connections with One-Stop systems or local STW partnerships. Once internal partnerships around WBL had cemented, other Center staff, and especially vocational instructors, also played an important role, by drawing on their personal connections in the community.

Two types of work-based learning activities were used, exposure activities and experiential activities. Exposure activities included job shadows, company tours, guest speakers, and career fairs. Most Model Centers provided a fairly inclusive range of these activities and involved all or most students to some degree. They served the important function of providing students with an initial introduction to the opportunities, demands, and expectations of employers or particular occupations and industries, and helped prepare both them and employers for the more intensive experiential activities.

Experiential activities involved opportunities for students to practice existing skills or gain new ones by working on- or off-Center. These positions were either paid or unpaid and could involve either full- or part-time employment, but almost always related to the student's trade. Off-Center worksites in the private sector were typically the primary setting for experiential activities, although off-Center worksites in the public or private non-profit sector and on-Center worksites were also frequently used. Vocational skills training projects (VST) also could be construed as a type of on-Center work-based learning, and involved students undertaking various projects relating to the maintenance, repair, or enhancement of Center facilities. VST can provide excellent opportunities for effective work-based learning, because the projects can require students to apply and develop a range of skills, including thinking skills, problem-solving skills, teamwork skills, and academic skills, as well as vocational skills. If specific learning objectives were articulated and the learning was documented, the VST project could be considered a quality WBL experience. However, Centers did not often make these connections and, thus, did not capitalize on this potential.

About one-half of the Centers reserved worksite placements for students who were nearing completion. However, the remaining half developed a tiered approach to WBL, with the tiers varying according to the duration or intensity of the activity, the learning objectives, whether the placement was on- or off-Center, and whether or not students were paid for their work. Where this arrangement was used, the specifics varied. However, the first tier might consist of job shadowing or other exposure activities for students who were fairly new to the Center; a second tier might then be available to students who were further along (typically they might be about half complete in their TAR) and consisted usually of unpaid part-time work in settings where more rudimentary skills were required; and a third tier might consist of full-time paid work for students who were nearing completion. Finally, a few Centers added a fourth tier that consisted of "homeplace" placements, which were used as a way of easing students into their transition out of the Center and into the workplace.

Each Center developed its own selection procedure, often involving a review panel made up of academic and vocational managers and others, to ensure that students were matched with an appropriate experiential work-based assignment. In almost all cases, it was expected that the worksite would relate to the student's trade. Beyond that, Centers looked closely at the students' work readiness skills, attitudes, and behaviors, to be sure they were ready for the work assignment in question. Often times, on-Center placements or placements with public or non-profit organizations were reserved for students at lower levels of readiness, since supervisors in these settings demonstrated a greater willingness to work with students with weaker skills and were more patient when errors were made.

In about one-quarter of the Centers, experiential WBL activities closely resembled traditional work experience programs (WEP). In most Centers, however, WBL was specifically viewed as an opportunity for learning and could begin earlier in the student's Job Corps career than WEP typically would. Typically this learning focused on vocational and employability skills. Academic skills, by contrast, were rarely developed as explicit learning objectives.

In general, students were well supervised. Work supervisors were often familiar with the students' Training Achievement Record (TAR), including where students were in their vocational training plan and what competencies they still needed to master. In some cases, supervisors could also "sign-off" to denote that a competency had been attained at the worksite. Infrequently, the student-supervisor interaction went beyond this and took on the characteristics of a mentoring relationship.

In expanding or enhancing their WBL component, Job Corps Centers must grapple with a number of important implementation challenges. Logistics, especially transportation problems, was among the most important. Nearly all Centers remarked that getting students to and from their off-Center work assignments was a major challenge. For rural Centers, public transportation networks were non-existent; for those in urban areas, they were woefully inadequate or inconvenient. Thus, Centers needed to use the Center van and hire part-time drivers to shuttle students back and forth. This proved to be quite costly. A number of Centers noted that they could greatly expand their use of WBL if only their transportation challenges could be resolved.

Other challenges that Centers faced included the extraordinary amount of time that recruiting employers and monitoring worksites would typically take and the difficulty in ensuring that Center staff, employers, and students shared the common vision of the training potential of WBL and were ready to assume their roles.

Connecting System Components

To ensure that the various school-based and work-based activities cohere into a meaningful whole, Model Centers needed to develop strategies to connect learning at work and school. At many worksites, TARs were used to promote this connectivity. In general, STW Coordinators took the time to explain TARs with worksite supervisors, explaining the skills that the student had already learned but needed to practice and new skills that needed to be taught. In the best examples, supervisors understood the competencies being addressed by the TARs and were able to "sign off" on competencies that the student had mastered at the worksite.

At a few Centers, vocational instructors, and more rarely academic instructors, also visited worksites on a regular basis. These visits help not only to ensure that training at worksites is connected to what is occurring in the classroom, but also help instructors to modify what occurs in the classroom to better suit the demands of the workplace. Although instructors invariably report that they benefit from site visits, they do not occur as frequently as might be desirable, because instructors have full teaching loads that make it difficult for them to get out of the classroom.

Staff development and capacity-building is another important connecting activity. In about one-third of the Centers STW training was judged to be very effective, as staff were able to benefit from an array of ongoing training initiatives, including regional conferences and workshops, workshops sponsored by local or state STW partnerships, and in-house training. In the remaining Centers, by contrast, staff training in STW was either minimal or sporadic.

Despite the fact that some staff development has occurred in almost all Centers, there is a clear need to do more to foster understanding and implementation of STW approaches. Most staff we interviewed believed that they would benefit from further professional development and training in STW. The particular areas in which improvements in training are needed include curriculum development, teaching methods that emphasize active learning, and teamwork skills.

Another important connecting activity is preparing students to transition to work or further training once they graduate from Job Corps. Centers have long had mechanisms to assist students in the placement process, including by using placement contractors and through organizations such as JACS and WICS, which also provide transitional support services. Spurred by STW and other related Job Corps initiatives, many of the Model Centers have recently expanded on these mechanisms by forging connections with local One-Stop systems and developing on-site "employment offices," with computers that link to the Internet and other resources and tools to assist students in the job search process.

Some Centers have also developed special living situations to help students adjust to off-Center living. These include transitional living programs designed to simulate the types of independent living situations that students can expect to experience after graduation. Other Centers engaged students in special courses to help them develop transition plans for the post-program period.

Finally, by way of studying connectivity, the evaluation team looked at Centers' relationships with various stakeholders outside the Job Corps system. Although relations with local employers typically revolved around their roles as providers of work-based learning opportunities, many Centers were developing deeper relations with the surrounding business community. These included special partnerships in which businesses donate equipment, provide input into curriculum development or on-Center training, or provide permanent employment to a high proportion of students after they complete their work-based learning internships. In some cases, employer involvement is channeled through active vocational or industry advisory councils.

In addition to employer stakeholders, other partners have made important contributions to the initiative. In some cases regional DOL representatives have been active partners. In other cases STW Coordinators have worked to expand community linkages beyond the employer community to include other public agencies such as school districts, community college, local STW partnerships, and local One-Stop systems.

Evolution and Sustainability

Even though their special STW funding has ended, the 30 Job Corps Model Centers will sustain new staffing patterns, new activities, new structures for learning, and new partnerships. With respect to staffing, nearly all Centers hired a STW Coordinator, in keeping with DOL's expectation for how the special funding would be used. All Centers but six continued to fund this position even after their special STW funding had run out.

About one-third had made a firm decision to maintain this position on a permanent basis; nearly all of the others indicated that they would try to do so, but were not sure that it would be feasible from a budgeting standpoint in the long-run.

Another permanent change introduced by the STW initiative in many Centers was the sustaining of new learning activities. Along these lines, all but two of the Model Centers had indicated a commitment to continue WBL. Indeed, WBL had been steadily expanded during the two years of our study, so that Centers are now offering an array of job shadowing and on- and off-Center work-based learning experiences for students. WBL is one component of the initiative that nearly all Center administrators and instructors could support unconditionally, although logistical difficulties (such as the difficulty of transporting students to their worksites and the time it takes to develop and monitor quality worksites) remain serious impediments to further growth.

Other new learning activities included the introduction of applied academics or other classroom-based contextual learning materials. Nearly all Centers used these to some degree, but often as a result of the initiative of individual instructors rather than as a systematic Center-wide effort. Even where they were introduced systematically, applied academics was often viewed as an "add-on" that might lengthen the time it took for students to complete their training, and in no case represented a wholesale transformation of the way that school-based learning occurred. Nonetheless, some Centers indicated that one of their primary future goals was to significantly enhance the integration of academic and vocational instruction. Staff were eager to have the opportunity for further professional development to enable them do so more effectively.

In a few cases, the STW initiative also gave rise to what seem to be permanent structural changes that Centers introduced to help break down the barriers to integrating the teaching of academic, vocational and employability skills. These included approaches that clustered vocational and academic instructors into teams, the adoption of new applied academics class periods, and transformations of physical space that put academic and vocational instructors into proximity with each other. The success of these bold moves cannot be judged for some time yet.

Finally, the strength of Centers' partnerships with employers is likely to be another important legacy of the STW initiative. These partnerships are likely to be a valuable resource for Job Corps, both in expanding and strengthening STW and more generally.

CHALLENGES AND PROMISING PRACTICES

Each of the Model Centers we studied, and indeed the Job Corps system as a whole, can be praised for its comprehensive approach to youth services. Thus, all Centers offered an array of intensive interventions that include attention to basic skills remediation, the attainment of widely recognized credentials, occupational skills training, employability and social skills development, health services, career counseling, athletics, and a host of ancillary services that, taken as a whole, could truly be expected to cause a major transformation in a young person's life. Moreover, Job Corps demonstrates attention to sound youth development principles, by providing individualized attention, fostering self-confidence, and promoting one-on-one relationships with caring adults.

Building on this solid foundation, the Model Centers were called on to modify the traditional delivery of academic and vocational instruction to integrate learning and provide closely linked work-based learning activities. Doing so requires that Centers engage in system building by forging broad partnerships and engaging in staff development and other connecting activities. The effective implementation of STW is therefore a major undertaking, and accordingly, we could not have expected the Model Centers to implement coherent, well-developed STW systems in a short period of time. Nonetheless, many of the Model Centers made substantial progress, and some implemented profound changes that, if not yet fully developed, offer the prospect when they mature of revitalizing the way learning takes place.

Some of the challenges they encountered in implementation are identified below, along with some of the promising practices that Centers undertook to overcome those challenges.

Challenge #1: Galvanizing Support Around STW

Because implementing a comprehensive STW initiative represents system-wide reform, it requires strong leadership and sound internal partnerships to bring about. Strong leadership and partnerships, in turn, require that top-level administrative staff at the Job Corps Center share a common vision around STW and believe that its implementation is a priority. Given the hierarchical nature of Job Corps Centers, gaining support of the Center Director as well as other key leaders, such as the Academic and Vocational Managers, is therefore critical to the development of a strong internal partnership and having instructors and other staff members commit their efforts to make substantial changes.

However, developing strong leadership and administrative backing for STW often proved elusive, for several reasons. To begin with, many of the Model Centers experienced *turnover, and sometimes prolonged vacancies, in key administrative positions*. For example, one-third of the Model Centers experienced turnover in the position of Center Director, one-half did so in the position of STW Coordinator, and still others saw turnover in Academic or Vocational Managers. Where this turnover occurred it was very difficult for the Center to maintain an impetus for change.

Second, *motivations for applying for Model Center funding varied*. Many Centers did so because their leaders were strongly committed to the promise that STW offered. However, in other cases, the Center was seeking access to the special funding or the prestige that winning recognition from the National Office entailed. In still other cases, the key personnel who had written the STW proposal either acted with limited input from Center leaders or were no longer at the Center when the awards were made. Thus, simply attaining Model Center status was not always evidence of administrative support and backing.

Third, the Centers' administration, including the Center Director and Vocational Manager or Academic Manager, consisted of diverse individuals with *different ideas and priorities regarding what was important*. Some of them were highly skeptical of the promise of STW or were otherwise resistant to change.

Closely connected with the need for strong leadership is the need for a strong internal partnership supporting the STW initiative. Successful implementation of STW requires active participation from staff within several different departments, such as academics, vocations, administration, counseling, placement and residential living. Indeed, the National Office's Characteristics of a Comprehensive STW System in Job Corps emphasizes the importance of mobilizing *all* staff behind the STW initiative.

This too proved to be a challenge in many instances. To begin with, the *STW Coordinators were generally not viewed as major power figures* within the Centers, at least not in their own right. Therefore, they found it difficult to be an effective force for change without strong support from other leaders. Instructors, for example, were not inclined to revamp their curricula, engage in joint planning, etc., unless it was clear to them that doing so was a priority that was fully endorsed by their superiors. In other words, in order to galvanize support from staff within the Center's different departments, the Center Director and other key administrative staff members must take the lead role in developing and promulgating a comprehensive vision of STW for their Center. Yet, as we have discussed, STW Coordinators often proceeded without this strong backing.

In addition to leadership issues, most of the Model Centers encountered a number of additional challenges to forming a strong internal partnership, including the *lack of shared vision of STW and staff members' resistance to change*. At many of the Centers, staff members did not fully understand what STW should entail or share a common vision for its development. In some cases, they were resistant to change or resented being told that they should revamp their established teaching practices.

Concerns about performance also hampered system-building efforts. At some of the Model Centers, staff members were concerned that certain aspects of STW might detract from the Center's ability to meet performance targets. This concern generally arose when instructors were fearful that moving to applied academics would cause students to lose focus on TABE or GED attainments and was an "extra" or "add-on" that would lengthen the amount of time students spend in academics or vocations. For example, at one Center, recent emphasis on meeting performance targets has resulted in greater reliance on the CMI and a shift away from designing new curricula that might incorporate contextual learning or project-based learning.

A high degree of staff turnover also made it difficult to galvanize support. As we noted above, turnover in key leadership positions greatly hampered efforts to maintain momentum toward change. However, turnover of staff in other positions at the Job Corps Center also negatively affected the development of the STW initiative. Several Centers experienced a high degree of turnover among instructors, particularly in the academic department, and consequently, forming a strong internal partnership became virtually impossible. At a few of the Model Centers, for example, almost all of the academic instructors were new to the Job Corps Center by the time of our second site visit. At one such Center, STW Coordinators expressed frustration that, once they developed relationships and networks within the Center, staff left the Center and these connections had to be developed all over again.

Turf issues were also important. Often times there are sharp divisions between different departments within a Job Corps Center, such as the academic and vocational departments. These divisions persist—at some Centers more than others—and often posed challenges to building an internal partnership around STW. In general, the Model

Centers that made more progress implementing STW were characterized by a high degree of teamwork and camaraderie among staff from different departments.

Another type of turf issue that surfaced at some of the Model Centers stemmed from the *lack of clear supervisory authority* in some Centers, caused by the fact that instructors sometimes worked for different employers, including unions, national training contractors, local school district staff, and local community colleges. At some Centers, staff members resisted working on joint activities, such as curriculum development or team-teaching, because they believed that these activities were not part of their job responsibilities or were not necessarily endorsed by their respective employers. However, having different employers represented at the Job Corps Center did not necessarily result in a weak internal partnership. In fact, some of the Centers with several different employers also enjoyed a very strong sense of teamwork around STW. What proved critical, again, was strong leadership and having all staff embrace the vision of STW as something that was best for the students.

In overcoming these challenges, Centers needed to:

1. Work aggressively to *promote buy-in from all staff at the outset*. Concerns that staff throughout the organization might have and that prevent them from moving forward with change need to be identified and addressed, whether it be a lack of understanding, conflicting priorities, lack of clear authority structures, and the like. To address these concerns and have staff respond to their requests for assistance, STW Coordinators need to have the support of the Center Director and speak from a position of authority. Strategies that proved helpful included establishing planning bodies involving diverse staff and adopting an organizational structure that gave STW Coordinators autonomy.
2. *Articulate a clear vision* about what STW is. The National Office's Characteristics of a Comprehensive STW System makes clear that STW is about systemic reform that involves all staff and is a comprehensive transformation of the way learning takes place. Yet this understanding was not widely shared among our respondents at the Model Centers. Instead, STW is often equated with WBL or is viewed as an "add-on." As part of the process of attaining Center-wide buy-in, STW Coordinators need to establish a common vision and engage in dialogue involving *all* staff on an ongoing basis.
3. Recognize that the National Office emphasizes that affecting change consistent with *STW is a high priority*. DOL has already expressed its strong support for STW by making it a part of the RESPECT challenges. This message must be continuously reinforced. The strong support from Center Directors was absolutely essential for change to occur, so ensuring that they understand the importance that DOL attaches to this initiative is critical.

Challenge #2: Finding Adequate Resources to Support Change

Another critical challenge the Model Centers faced during the two-year study period, and will continue to face as they work to sustain their STW initiative, concerned a lack of resources to fully support the changes that were being contemplated. One manifestation of this was that most Centers felt severely constrained by a *lack of time for staff* to engage in curriculum development and joint planning or visit worksites. As it stands, all instructors at most Centers have full schedules with little or no "down time." Moreover, all classes must be "covered," to avoid having students be unsupervised. Under this circumstance, it will be a challenge to have curriculum development proceed as it needs to.

Several Centers also emphasized that the *lack of sufficient staff development and training opportunities*—particularly for academic and vocational instructors—posed a substantial barrier to the development of a more comprehensive STW initiative. Even under the best of circumstances, developing new curricula is a complex undertaking that requires special skills. The instructors that we met are surely very capable individuals and many expressed a willingness to try something new that might energize and excite their students. However, they freely admitted that they had little experience in developing curricula and were not sure how to go about integrating the teaching of academic, vocational, and employability skills. Moreover, they generally have not been called on to do so until now, so even thinking about what needs to be done requires a substantial mental adjustment. Emphasizing the importance of staff training, one Center responded to our query about what they wish they had done differently by observing that they "would have trained all staff at the Center at the very beginning, rather than sending them off piecemeal to various training activities. Everyone needs to simultaneously launch STW if it is to be effective."

Virtually all of the Model Centers have also been struggling with *transportation issues*, a concern that is especially acute for Centers located in rural areas. Many of the Centers scrambled to secure adequate transportation to take students to and from WBL sites (referred to by one Center as its "unfunded mandate"). One way they did so was by using a portion of their STW funds to cover transportation expenses (by hiring a part-time driver, for example). However, now that their special funding has ended, Centers will find it challenging to sustain these efforts, or expand them as the extent of work-based learning expands.

Given the Job Corps system's limited funding, a lack of resources is not an issue to which there are easy solutions. Nonetheless, some Centers have developed strategies to overcome this limitation by taking steps to:

1. *Rearrange Center schedules or staffing.* There is simply no slack in the typical Center's staffing or scheduling to allow instructors "free time" to engage in joint planning and curriculum development, or to visit worksites. Some Centers handle this by building regularly scheduled planning periods for instructors.
2. *Utilize a range of staff development opportunities,* and linking them so that they build on each other. Staff training cannot be a one-time event, but should be on-going and cumulative. In support of this, some Centers took advantage of local STW partnerships for staff development assistance and purchased curriculum guides and other resources.
3. *Develop a range of strategies for providing transportation* for students. Centers lack the funds to hire drivers to cover all their transportation needs as they pertain to WBL. Thus, Centers have made alternative arrangements, including providing students with transportation vouchers or bus passes and having employers or staff assist with transporting students. On-Center WBL was also increasingly relied on to obviate transportation challenges.

Challenge #3: Changing the Way Learning Takes Place in the Classroom

A primary objective of STW is to transform school-based learning by integrating the teaching of a range of skills, including academic, vocation, and employability skills. This is intrinsically difficult, as has already been noted, and is made more so given the limited opportunities for joint staff planning and professional development and training, which were discussed above.

However, in order to make integration at all feasible, academic and vocational instructors will need to work together. The challenge in making this happen is in overcoming the usual *compartmentalization of most Job Corps Centers*, with its strict divisions between vocational and academic instructors. This means that instructors who are not used to working with each other must come to understand how their separate domains can complement each other and respect what others can bring to the table.

An additional challenge is in *changing the content and structure of learning*. The National Office has taken an important step by modifying the Policy and Requirements Handbook to allow Centers more flexibility in classroom instructional methods and materials, including by encouraging departures from the CMI system. Centers must use this new-found freedom to change the way that learning takes place on Center. However, some elements of Job Corps' usual structure make innovative instructional techniques difficult. For example, because of its open-entry/open-exit format, students in any one class are likely to be at greatly varying levels of competencies. This can be a real strength, from the standpoint of encouraging peer-to-peer learning, but makes it more difficult for instructors to design lesson plans that speak to the needs of all students simultaneously. Similarly, the fact that students in any given academic class are typically drawn from multiple trades makes it difficult to utilize contextual learning that appeals to all students equally.

Among the ways that some Centers have overcome these challenges were to:

1. *Break down barriers between academic and vocational departments.* Once they began working with each other, instructors from various departments realized that they could complement each other's efforts very nicely, and that they each had something to offer the other. Centers undertook various strategies to break down barriers, including building regular planning periods into each instructor's schedule, assigning academic and vocational instructors to teams that were to work together, and institutionalizing team-teaching.
2. *Develop new ways of teaching students,* including by developing new teaching methods and curricula, such as applied academics, or enhancing the learning potential of existing methods, such as by transforming classrooms into simulated worksites, or using vocational skills training projects or service learning.

Challenge #4: Ensuring that Work-based Learning is Content Rich and is Linked to School-based Learning

Almost uniformly, respondents at the Model Centers reported that the expansion of work-based learning as part of the STW initiative represented a major advance. Not only was it felt that students needed and greatly benefited from the first-hand exposure to the work world as part of their preparation for eventual full-time employment, but WBL was recognized for the powerful training tool that it can be if done well. Moreover, students were almost unanimously pleased with their work experience assignments, welcoming the chance to test themselves in the "real world."

Nonetheless, the Model Centers did encounter the usual challenges that have been reported by state and local STW partnerships in their similar efforts. These included the *difficulty of ensuring that good quality training is occurring* at all worksites. Many employers take their responsibility to be providers of training seriously, but not all do; similarly, some employers know what it means to develop a training plan for students, but Centers cannot assume this will be the case. Ensuring that good quality training is occurring will thus entail substantial effort on the Centers' part.

Another challenge was the *difficulty in ensuring that learning that occurred at the worksite was closely linked with what occurred in the classroom.* One way in which WBL under STW differed from traditional WEP was that WBL worksites almost invariably related to the students' trade. To this degree, school-based and work-based learning were almost always linked. Nonetheless, good quality WBL requires something more—some measure of coordination between work supervisors and classroom instructors to be sure that learning is mutually reinforcing and that problems that students are encountering in one setting are being addressed in the other.

Efforts that Model Centers made to address these challenges included their steps to:

1. *Monitor worksites for their quality.* Monitoring worksites for quality turned out to be enormously burdensome, especially as Centers expanded their WBL component to place increasing numbers of students at sometimes far-flung worksites. Strategies that Centers adopted to overcome this challenge were to assign one person solely to this task, or to have the burden shared among vocational instructors.
2. *Develop a variety of worksites geared to different students' needs.* The Centers with high quality WBL recognized that a variety of different worksites were needed to meet the needs of students at different stages of their development. To reflect this, students were rotated across various worksites during their time at the Center, and assigned to the worksite that best met their needs at a particular moment. As it was implemented, this practice meant that Centers were developing tiers of WBL assignments that varied with respect to skill demands and duration or intensity and using combinations of job shadowing, on-Center placements, off-Center placements with non-profit organizations, and off-Center placements in the private sector.
3. *Foster linkages between school-based and work-based learning.* One way in which school-based learning can be better linked to work-based learning is to ensure that instructors and work supervisors have the opportunity to meet periodically or otherwise coordinate their efforts. Ways that Model Centers did this included having academic and vocational instructors visit worksites periodically, having employers visit the Center, and using the Training Achievement Record as a common currency for monitoring learning gains.

A FRAMEWORK FOR UNDERSTANDING CHANGE

Despite all of the challenges noted above, many of the Model Centers made considerable progress in galvanizing greater support for STW among staff and implementing new activities or strategies, using some of the promising practices we noted above. And yet, none of the Centers could really be said to have put it all together, by developing a well-functioning, fully integrated STW system. The biggest reason why none did so is that the complex changes that are envisioned simply take time. Thus, undoubtedly many of the Model Centers will continue to make steady progress towards achieving their objectives, if they keep themselves focused on the comprehensive STW vision.

Additionally, the innovative practices that some Centers implemented were sometimes less successful than they might have been because some critical piece of the puzzle was missing. For example, staff might have been given time for joint planning and curriculum development, but maybe were not provided with the training that they needed to make their efforts fully bear fruit. Or an energetic STW Coordinator might have been successful at mobilizing support and resources, but his or her vision of STW might have been flawed from the beginning.

This lesson is made clearer by recognizing that successful sustainable change is a function of vision, skills, incentive, resources, action planning, and evaluation to affect continuous improvement. Each of these must be present for effective change to occur. The National Office of Job Corps might further support sustainable change by continuing to reinforce the STW vision and message, encouraging coordination of professional development around STW across Center operators, developing additional technical assistance materials that Centers can use to guide change, and supporting a small number of pilot sites that would be expected to build on the work of the Model Centers to serve as national learning laboratories.

I. INTRODUCTION

Social Policy Research Associates and its subcontractor, Brandeis University's Center for Human Resources, were awarded a contract in mid-April 1998 by the U.S. Department of Labor (DOL) to conduct the Evaluation of the School-to-Work Out-of-School Youth (OSY) Demonstration and Job Corps Model Centers. The demonstration programs and Model Centers are alike in attempting to incorporate and adapt school-to-work principles in their service to out-of-school youth. The evaluation consisted of a process study of their efforts with a focus on "lessons learned," and was conducted over approximately a two-year period. This volume is the Final Report for the component of the study focused on the Job Corps Model Centers. As such, it presents findings regarding the design and implementation of school-to-work efforts in the Centers, including the vision for what they wanted to accomplish and their efforts at integrating learning. A companion report addressed similar issues with respect to the OSY demonstration projects.

BACKGROUND

The landmark School-to-Work Opportunities Act of 1994 constitutes an important context for the evaluation. This legislation directed much needed attention to the lack of connectedness between work and learning for young people and offers the promise of substantially reshaping the U.S. educational system to develop principles and practices of context-rich instruction, integrate academic with vocational instruction and classroom with workplace learning, and promote exposure to the world of work for young people at an early age. But, as states hasten to implement school-to-work (STW) programs in their schools, they risk leaving out the important subset of youth that includes high school dropouts and recent graduates. The demonstration projects and Model Centers that are being studied as part of the evaluation represent important thrusts toward reaching this population.

Reasons for School-to-Work Initiatives

A variety of reasons have been put forth over the last two decades for implementing school-to-work systems for America's youth. Early on, attention focused on the poor school-to-work transition experiences of the "forgotten half" of American youth who do not attend post-secondary education (W.T. Grant Foundation, 1988). Indeed, evidence suggests that those who are not college bound experience an extended period of "floundering" in the labor market in the years just after they leave high school, marked by frequent job hopping among unrelated jobs, interspersed with protracted spells of unemployment (e.g., Osterman, 1980). Of course, some job shopping can be beneficial, as youth seek out the jobs that best match their interests and abilities. But, just as clearly, excessive instability in the early years can "scar" youth by labeling them as unstable or unreliable in the eyes of employers and result in foregone opportunities for investment in job skills during the critical period when young workers need to be establishing themselves on a career trajectory.[1]

The associated costs of lost productivity, both to society and the young people themselves, led some policy analysts to argue that secondary schools ill served the non-college bound by leaving them poorly prepared for entrance into the labor market. The high school's curriculum, it was argued, was organized around academic subjects geared towards meeting the needs of those intending to go to college; meanwhile, the vocational and general tracks, the typical refuge of the non-college bound, failed to provide students with sound basic and critical thinking skills or adequately prepare them for a vocation. Indeed, analysts have concluded that the typical vocational education program in America's secondary schools provides scant advantages in the labor market. By contrast, it was pointed out that other industrial nations—Germany was often held out as an exemplar—had well developed apprenticeship systems that directly linked the school system with opportunities for young people to gain practical work experience and first-rate vocational skills training. Similar systems were proposed for the U.S.

Although early arguments on behalf of school-to-work thus focused on better meeting the needs of the non-college bound, the tenor of the debate subsequently shifted to emphasize the importance and value of integrated academic and vocational skills instruction for all young people, including high achievers. Secondary schools were criticized for emphasizing rote memorization and the decontextualized learning of facts devoid from guidance about how to apply knowledge learned in the classroom to solving practical problems. As a consequence, young people were felt to be poorly prepared for the needs of the emerging, high-performance workplace that demanded critical thinking and problem-solving skills of workers (Johnston and Packer, 1987; Bailey, 1995). Although the claims were sometimes overstated, evidence from cognitive psychology was also cited to point out that people learn more efficiently and are more highly motivated when they are actively involved in creating learning for themselves and when learning is embedded in a meaningful context that engages the mind.[2]

---

[1] For literature on this debate, see Becker and Hills (1980, 1983), Ellwood (1982), Lynch (1989), and D'Amico and Maxwell (1994).

36

Along these lines, linking academic and vocational learning was seen as an obvious way of providing a context for the teaching of basic and SCANS skills, as well as introducing youth to the demands and rigors of the work world.[3] Youth could be better prepared for their futures, it was thought, if their educational programs were imbued with career themes, if academic learning became contextualized and occurred in complex "authentic" situations, and if students were to become active participants in the learning process.

Showing remarkable prescience, John Dewey expressed these same ideas nearly a century ago. He decried what he saw as the artificial separation between academic and vocational learning and believed that movements underway at the time to develop academic and vocational tracks in secondary schools were seriously misguided. He emphasized that developing the capacity of young people to think critically could best be achieved when their natural instincts to discover and explore were given free reign:

> To organize education so that natural active tendencies shall be fully enlisted in doing something, while seeing to it that the doing requires observation, the acquisition of information, and the use of constructive imagination, is what most needs to be done...Education through occupation ...combines...more of the factors conductive to learning than any other method (Dewey, 1916 reprinted 1977: pp. 137, 309).

The advantages of school-to-work systems are thus believed to be manifold. First, contextual active learning of the sort being promoted is believed to best promote higher-order thinking skills. As youth exercise these skills again and again in a variety of contexts, rather than engaging in rote memorization, they develop the ability to problem solve, think critically, analyze information, communicate ideas, and make logical arguments. Second, these learning methods are thought to increase youths' motivation for learning. By helping young people see the applicability of what they are learning to the world around them and their futures, school-to-work systems can be highly motivating. By virtue of this fact, youth might apply themselves more forcefully to their schooling, including their academic courses, and develop a greater interest and inclination in pursuing post-secondary education. Third, the methods associated with school-to-work often imply learning as part of a collaborative and interactive process as a member of a team. As such, a "community of support" develops for learning that again enhances youths' motivations and overcomes the depersonalization that has been identified as a contributor to lagging student achievement and higher dropout rates (Kemple, 1997).

---

[2] For a review of some of this evidence, see Anderson, Reder, and Simon (1998).

[3] The SCANS skills were defined by the Secretary's Commission on Achieving Necessary Skills as representing the array of skills required of workers in the competitive, and high-achieving workplace. The Commission identified three foundation skills (including basic skills, thinking skills, and personal qualities) and five competencies (those relating to resources, information, interpersonal, systems, and technology). See U.S. Department of Labor (1991).

What Should School-to-Work Entail?

The School-to-Work Opportunities Act (STWOA) identifies three key elements of school-to-work.

- School-based learning. This component includes:
    - Career awareness, career exploration, and counseling.
    - The opportunity for "interested students" to select a career major, which becomes the focus of learning.
    - A program of study based on high academic and high skill standards.
    - A program of instruction and curriculum that integrates academic and vocational learning, incorporating all aspects of an industry and tied to the students' career majors.
    - Regularly scheduled evaluations to identify students' strengths and weaknesses.
    - Procedures to facilitate entry into additional training or post-secondary education.
- Work-based learning. Mandatory activities include:
    - Work experience.
    - A planned program of job training and work experiences that are coordinated with learning in the classroom and relevant to the students' career majors.
    - Workplace mentoring.
    - Instruction in general workplace competencies.
    - Instruction to all aspects of the industry.
- Connecting activities. Connecting activities should include:

- Strategies for matching students with work-based learning opportunities.
- School-site mentors who act as liaisons among the student and the employers, teachers, and parents.
- Professional development for teachers, mentors, school- and work-based staff, and counselors.
- Outreach to encourage the active participation of employers.
- Post-program transition assistance to aid students in their entry into employment or further education and connect them with needed community services.
- Monitoring program performance.

Although this formulation of school-to-work dates only to the enactment of the STWOA in 1994, many of the underlying ideas are much older, as the review presented earlier in this chapter suggests. As such, they have found expression in a variety of learning strategies that have been adopted over the decades, with vestiges that have served as building blocks of more recent school-to-work reforms. More generally, school-to-work is being introduced in the context of well-developed American high schools with pre-existing structures that make wholesale reform difficult. Even then, as the above review also suggests, school-to-work has been promoted for a variety of reasons, with different goals and objectives given emphasis. For these reasons, a number of discrete elements of school-to-work have been developed within secondary schools, with some emphasizing school-based components and others work-based components. These can be summarized as follows:

- *Tech Prep.* This strategy primarily relies on school-based learning and consists of efforts to develop articulated programs of four years of sequential course work in specific fields such as business, health, engineering, and agriculture. Tech-Prep participation typically begins during the last two years of high school and continues with two years of post-secondary education, leading to an associates degree.
- *Career Academies.* A career academy is a "school-within-a-school" that provides students with a three- or four-year program integrating academic learning with the study of a specific industry. Students in an academy are typically grouped together for many of their high school courses and work under a small number of academy teachers during their course of study. The academic curriculum draws heavily from the academy's industrial field, and local employers also provide work and mentoring to students during summer internships in this area.

- *Youth Apprenticeship.* Youth apprenticeship programs provide an example of a primarily work-based intervention that is designed to bridge the gap between high school, post-secondary education, and work, while relying heavily on the workplace as the major focal point for learning. Students learn technical skills and related skills in math, science, and problem solving related to specific industries such as health care, machining, electronics, or hotel services. A recognized credential is typically awarded upon completion of the program.
- *School-Based Enterprises.* School-based enterprises (SBEs) engage students in producing goods or services for sale or use to people other than the participating students themselves, and to this degree simulate a work-based learning opportunity. Unlike youth apprenticeships and career academies, school-based enterprises do not require direct participation by businesses in their operation, but do require a substantial investment of school time and resources.
- *Cooperative Education.* Cooperative education is by far the most widespread activity combining school and work activities in the U.S. and has been recognized by federal authority since 1917. Through written cooperative agreements between schools and employers, students receive instruction that includes required academic courses and vocational training, alternating study in school with a job in a related occupational field. Typically work-based learning is only weakly related to school-based coursework.
- *Career majors or pathways.* If done well, this model holds the prospect of constituting a well-developed school-to-work system, with integrated school-based and work-based components. A typical system might offer multiple career pathways, with each pathway consisting of a sequence of related courses and work-based learning experiences. All students are expected to chose a pathway and thereafter will take courses that are build around the career theme. Emphasis is placed on integrating academic and occupational learning, integrating school-based and work-based learning, and establishing connections with post-secondary institutions.

These designs vary in important ways and, just as importantly, are implemented in different ways. Thus, in practice, programs are developed that implement only parts of these models or that combine aspects of them to create "hybrid" designs (Pauly, Kopp, and Haimson, 1995). Given this circumstance, school-to-work as it is implemented can look dramatically different from one school to the next. For example, programs in different schools might differ in the relative emphasis placed on work-based vs. school-based learning. They will differ too in the extent to which true structural reform takes place, in the sense that both academic and vocational courses are revamped to relate closely to each other and the career theme, as opposed to constituting an "add-on," which might take the form of embellishing or adding a course or two. They differ too in the extent to which STW is seen as a part of or stemming from the reform of vocational education, as opposed to constituting something entirely new that can meet the needs of all students rather than just special subsets (e.g., at-risk youth, the non-college bound). Finally, designs differ in the extent to which they promote opportunities for post-secondary school attendance, including four-year colleges.

Given this diversity, even defining what school to work is becomes very difficult. However, attempts to delineate essential elements of well-developed programs typically identify these key features:[4]

1. The integration of academic and vocational learning combining both classroom- and work-based learning and effective linkages between secondary and post-secondary schooling.
2. Defined career majors.
3. The incorporation of school-based learning, work-based learning, and activities connecting the two.
4. Exposure of students to experiences in all aspects of an industry.
5. Equal access to all students to the full range of program components.

Others configure the key elements in a slightly different way, but all emphasize the importance of building a system that includes the integration of classroom and work-based components, the integration of academic and vocational skills instruction that is organized around career themes, and the reliance on active applied learning and learning in context. According to this vision, therefore, school-to-work must entail true reform and will generally entail a wholesale restructuring of the traditional ways of doing things.

Adapting the Model to the Needs of Out-of-School Youth

As states and local communities concentrate their efforts on developing comprehensive systems in response to the School-to-Work Opportunities Act, the logical focal point for implementation is the schools. For young people who are disenchanted with and disconnected from the traditional academic environment, this means that our most vulnerable young adults lack access to the opportunities the Act has created. This omission is unfortunate, because high school dropouts and disaffected graduates generally do not have the highly developed sets of skills required of today's workers.

---

[4] Identified in Ryan (1997).

Consequently, they suffer chronic unemployment and earnings that increasingly lag behind their more highly educated peers.

The imperative for reform becomes even more apparent when one considers the fiscal and social costs associated with poor academic achievement:

- Among males ages 25 years and over with earnings, high school graduates (with no post-secondary education) earned over $8,300 more per year in 1998 than did those who did not complete high school. Among females the earnings gap is about $6,000 (U.S. Department of Commerce, 1998).
- The National Dropout Prevention Center reports that, in 1990, 82% of the nation's prisoners were high school dropouts (see www. dropoutprevention.org).
- The same source reports that each year's class of dropouts will cost the country over $200 billion during their lifetimes in lost earnings and unrealized tax revenue.

Given the above observations, it is apparent that both out-of-school young people and society might benefit greatly from the opportunities afforded by the STWOA. However, the process of implementing these goals for out-of-school youth proves to be much more difficult than implementing them for young people within a regular high school. Indeed, serving out-of-school youth in a school-to-work framework gives rise to a number of important and unique implementation challenges that Job Corps Centers will need to confront, including those relating to recruitment and retention, program structure, and strategies for skills development.

Recruitment and Retention. Out-of-school youth, unlike youth attending regular school, typically are not strongly connected to a particular institution that will encourage access to school-to-work or other education/training and support services. This lack of connection adversely affects the system's ability to identify out-of-school youth for enrollment in programs of any type. Once they are identified, convincing youth to enroll in training programs, particularly ones like Job Corps that enforce high expectations and demand a long-term commitment, will often prove difficult. The target population, after all, consists of youth who are disaffected from structured learning environments, and convincing them to undertake more of the same represents a challenge.

Once recruited, their lack of connection can also adversely affect retention, a problem that can be aggravated still further by the residential nature of Job Corps, which removes youth from a familiar environment to a setting that can appear alienating and strange, at least at first. Programs must therefore move quickly to establish trusting, task-based relationships between youth and adults. Additionally, the differences between what out-of-school youth perceive as their immediate need (training for a job), and what program staff "know" is needed (e.g., teaching a range of SCANS, vocational, and social skills) creates tension in developing that relationship, and thus reinforces the young person's experiences that the system does not understand and is not responsive to his/her needs—they have walked out of larger, more institutional systems for the same reason, and feel no loyalty to stick around for more of the same. At the same time, STW principles, with their emphasis on the connectedness between work and learning, offer the promise of providing out-of-school youth with the necessary motivation.

Among other challenges with respect to retention are the doubtless greater social supports that out-of-school youth will need. Job Corps enrollees are disproportionately represented in groups that have substantial barriers to employment, including not only poor basic skills and limited prior work experience, but also poor social skills and low self-esteem. This association gives rise to an additional set of challenges—the need for extensive supportive services and counseling, and the coordination of an array of training and other services. If these issues are not adequately addressed from the beginning, young people will not progress as they are expected to or might leave the program out of frustration over their inability to meet high expectations.

Program Structure and School-to-Work Components. Adapting school-to-work components for out-of-school youth also presents problems and issues in program structure related to the length of participation. The structure of most in-school school-to-work efforts provides for many elements to be addressed throughout a young person's school participation. In most school-to-work initiatives, schools have developed curricula to incorporate career exploration, establish career pathways, link school and work, etc., as a sequence of activities and services that span the K – 12 years. At the minimum, school-to-work activities are emphasized during the last several years of secondary school.

By contrast, participation in Job Corps typically lasts no more than about 9 months, and thus, several problems and issues present themselves within the school-to-work framework. Most obvious is the struggle to telescope within a shorter length of participation the overall mix and sequence of services that would be desirable ideally. Moreover, the requirements for the high school diploma or GED impose (or, at least, seem to practitioners to impose) a certain rigidity to the academic courses that must be provided. Meeting these requirements expeditiously can make innovation with respect to the integration of vocational and academic skills instruction difficult or risky.

Providing for the careful selection of career pathways will also be difficult within the shortened timeframe. In well-developed school-to-work systems for in-school youth, career counseling and assessment are engaged in as careful and deliberate activities during the middle-school years, before the selection of a career pathway is made. In programs for out-of-school youth, these activities must be dramatically shortened.

Skill Development. Most program participants will be high school dropouts or disaffected high school graduates who lack the sets of skills required of today's workers. Their transition to high wage/high skill employment opportunities, post-secondary education, or additional training will require extensive basic skills remediation and opportunities to develop and practically apply the set of generic workplace skills that employers are demanding. In order to achieve the high academic standards associated with school-to-work principles, this skill building will need to be incorporated into the program design. Careful planning must therefore occur in order to ensure consistency with the quality principles of school-to-work, by promoting high standards, while addressing a wide range of skill deficits.

Additionally, vocational programs for out-of-school youth have typically concentrated on preparing young people for narrowly-defined entry-level occupations. Yet, in an effort to move beyond narrow vocational educational, school-to-work emphasizes exposure to all aspects of an industry, with its concomitant expectation that youth should be prepared for entry into an array of jobs or further training within a broadly-defined occupational or industry cluster. Preparing out-of-school youth for immediate entry into the job market (for those for whom further training is not foreseen) without unduly "pigeon-holing" or precluding wider sets of opportunities will constitute an important challenge.

THE SELECTION OF THE JOB CORPS MODEL CENTERS

Job Corps provides services through a network of approximately 120 Job Corps Centers nationwide. Of these, about one quarter are Civilian Conservation Corps (CCC) Centers that are operated through interagency agreements between DOL and other agencies of the federal government, including the Forest Service and the National Park Service. The remaining Centers are operated through contracts awarded on a competitive basis to nonprofit and for-profit organizations, many of whom operate multiple Centers under separate contracts.

In the spring of 1997, DOL issued an announcement encouraging Centers to submit an application for designation as a Model Center. In developing criteria to select the awards, DOL decided that the number of Model Centers it would designate within each region should be proportionate to the regions' number of Job Corps Centers in operation. Beyond that, in concert with the Job Corps National Office, DOL Regional Offices made clear that they were looking for evidence that those applying for Model Center status would implement high-quality school-to-work principles, including school-based and work-based learning, and connecting activities. After the review process, awards were made in the summer of 1997 to 30 Centers, with each receiving an increase in their operating contract of approximately $60,000 for each of two years. The completion of the grant period was thus the summer of 1999.

To assist Centers in their ability to develop innovative designs, DOL emphasized that it would be receptive to requests for waivers of otherwise required training practices. It also provided a number of resources for technical assistance, including issuing a *School-to-Work Technical Assistance Guide* and making available to Model Centers on-site visits by trainers who are experts in school-to-work implementation. To clarify its expectations, the National Office also issued various discussion papers and documents, including "Characteristics of a Comprehensive STW System in Job Corps." These indicators of quality STW programs, which are detailed in Exhibit I-1, make clear DOL's expectations for the Model Centers, and, eventually, for the Job Corps system as a whole. As such, they constituted key criteria by which the Model Centers were evaluated as part of our study.

DATA COLLECTION AS PART OF THE EVALUATION

The evaluation of the Model Centers consisted of a process study designed to address the following general research issues:

- What are the problems encountered in adapting the strategies, principles, and objectives of school-to-work to Job Corps Centers? In what ways have the Centers addressed or solved these problems?
- In what ways do school-to-work strategies for serving Job Corps youth differ from more traditional approaches to serving this population?
- In what ways must effective school-to-work strategies for serving Job Corps youth differ from those for serving in-school youth?

Exhibit I-1
Characteristics of a Comprehensive STW System in Job Corps

SYSTEM MANAGEMENT

1. Center management and *all* staff have a shared vision of school-to-work as a system that maximizes opportunities for students to develop necessary academic, vocational, and social skills and to succeed in better quality jobs. They understand that STW is a "framework for learning" that offers opportunities for learning beyond traditional classrooms and is composed of school-based learning *and* work-based learning *and* connecting activities.
2. Center staff's use of STW terminology demonstrates an understanding of the underlying concepts of STW; e.g., students are not out on a "STW assignment or linkage," but a work-based learning assignment or linkage within the overall STW system.
3. There is a plan for institutionalizing STW throughout center operations. The plan addresses school-based learning (SBL), work-based learning (WBL), and connecting activities, includes strategies for promoting crosscutting activities, and is being actively implemented.
4. A mechanism is in place for evaluating the effectiveness of the STW system on a regular basis, including the identification of barriers and development of corrective action plans.
5. Notwithstanding any current model activities or experimentation, centers have plans for providing opportunities for all Job Corps students to participate in the overall STW system, including both SBL and WBL, according to their individual abilities, needs, and career plans.
6. There is a process for determining each student's readiness, including social skills competencies, to go to a worksite; the process includes input from all relevant components of a Job Corps center.
7. All staff have roles in STW implementation and understand them.
8. Time is provided for staff planning and other team activities to integrate training curriculum and design specific products, such as additional competencies, lesson plans for project-based learning, and revised schedules to accommodate team teaching.
9. Centers have plans for sustaining STW activities and staff functions once dedicated STW resources are exhausted.

Exhibit I-1 (continued)
Characteristics of a Comprehensive STW System in Job Corps

SCHOOL-BASED LEARNING

10. Centers develop new training materials and teaching methodologies that incorporate a combination of social, educational, and vocational competencies.

11. Project-based learning (PBL), in which students learn by taking part in multi-disciplinary projects that resemble "real world" problems, is utilized. PBL for social skills development is also utilized. (Or, if the center is in early stages of STW implementation, PBL is planned or being actively explored).

12. Students are active learners, spending a maximum amount of time learning in small groups, in project-based activities, or in technology-based learning laboratories, and a minimum amount of time in solitary, workbook-based learning activities.

13. Students are actively involved in planning, budgeting, and marketing Vocational Skills Training (VST) projects.

14. VST projects integrate academic competencies, vocational competencies, and social development competencies in their planning and execution.

15. Academic and vocational teachers work together to integrate curriculum and coordinate lessons and instruction, and they confer with each other about students' needs.

16. Teachers connect classroom experiences to the realities of the workplace, emphasizing problem-solving and communications skills; they use a variety of teaching methodologies, including hands-on tasks, project-based learning, and team activities.

WORK-BASED ACTIVITIES

17. Attention is given to the development of quality worksites, where skills recently acquired on center can be further developed *and* new skills can be learned, and where qualified instructors/mentors assist students.

18. All worksites, whether off center or on center, are well structured to meet learning objectives and are well monitored. On-center work-based learning occurs in settings that are highly reflective of the world of work.

19. Opportunities for different levels and types of learning at worksites are available at various times during a student's enrollment, according to the student's needs and learning objectives.

20. There is a system for recording skills acquired through work-based learning.

21. Learning at the worksite is coordinated with learning on center—in vocational shops, academic classrooms, and social skills learning environments.

22. Employers participating in work-based learning provide safe working environments that meet all applicable health, safety, and legal requirements.

Exhibit I-1 (concluded)
Characteristics of a Comprehensive STW System in Job Corps

CONNECTING ACTIVITIES

23. A center's employer recruitment strategy offers employers a continuum of activities in which to become involved, including such activities as: job shadowing, input into curriculum, work-based learning, providing career information to students, helping instructors become familiar with the demands of the workplace, and helping students develop Social Skills Training (SST) competencies.
24. Employers assist in planning school-based learning.
25. On-center student support and logistical activities have been aligned to support the STW system.
26. SST skills are integrated into the school-based and work-based learning curricula.
27. *All* instructors—academic, vocational, and SST—are familiar with the competency requirements of each other's courses, knowledgeable about current requirements of workplaces, and tie that knowledge to learning opportunities for students.
28. Strategies are in place (1) to provide professional development to school-based learning staff, and (2) to recruit, train, and support employers, mentors, and volunteers in the community.
29. In designing professional development activities, opportunities provided by employers, secondary and post-secondary school systems, and other community resources are identified, explored, and utilized.
30. There are links between Job Corps and postsecondary education institutions.
31. A variety of partners in the community contribute to the effective implementation of the center's STW system in a variety of ways, including providing information, resources, and volunteers.
32. Centers understand the potential benefits of linking with the State STW systems and STW Local Partnerships, explore such collaboration, and make appropriate connections.
33. A variety of worksites, on and off center, are considered as potential work-based learning opportunities, including private employers, nonprofit agencies, centers themselves, Forest Service/Park Service/Fish and Wildlife/Bureau of Reclamation, and State agencies.

- In what ways do the programs establish linkages with other state or local school-to-work systems? How effective are these linkages in promoting program improvements?

In collecting information to answer these questions, research team members studied each of the 30 Model Centers in depth. As part of the data collection, 23 of the 30 were visited twice during the course of the study, with a two-day site visit each time. The first round of visits occurred approximately mid-way through the period during which the Centers were receiving extra funding, while the second round occurred just after the period had drawn to a close. Thus, we could observe Centers not only while they were complying with the terms of their contracts, but examine what elements they were likely to sustain without the benefit of special funds. Meanwhile, throughout the 18-month period of data collection we conducted periodic telephone reconnaissance with these 23 Centers, to learn of the evolution of their initiative during the time between site visits. Lengthier telephone contacts were also conducted periodically with the 7 Model Centers not slated for on-site visits. The purpose of maintaining regular contact with the Model Centers over such an extended period of time was to observe the evolution of their program designs and examine what implementation challenges arose and how they were addressed. Exhibit I-2 identifies the 30 Model Centers, and highlights those that were visited in person.

As part of the data collection process, research team members:

- Conducted discussions with Center administrators and planners, to learn about project goals and objectives, staffing and staff training, service designs, and the nature of key internal and external partnerships.
- Conducted discussions with curriculum planners, instructors, and employers and work supervisors. These interviews were designed to provide information about curriculum design, staff training and development, the content and context of classroom and work-based instruction as well as strategies used to link these activities, the extent to which instruction integrates the teaching of academic and workplace skills, the extent to which instruction is organized around career pathways, strategies for ensuring that high academic standards are promoted, opportunities for mentorships, and ways in which active learning methods are utilized.
- Conducted discussions with staff to learn about the characteristics of youth on Center, how school-to-work implementation might have affected retention problems and strategies, the types of assessments used to develop individualized service strategies (e.g., for work-based and

Exhibit I-2
Job Corps Model Centers

DOL Region	State	Name	Capacity	Center Operator
1	CT	Connecticut	200	ITT Job Training Services
1	ME	Loring	380	Training and Dev Corp
2	*PR*	*Barranquitas*	*260*	*Res-Care*
2	NY	Cassadaga	240	Global Assoc
2	NJ	Edison	530	Res-Care
3	PA	Philadelphia	225	Management and Training Corp
3	*DC*	*Potomac*	*490*	*Management and Training Corp*
3	MD	Woodstock	492	Adams and Assoc
4	GA	Atlanta	515	Management and Training Corp
4	*MS*	*Batesville*	*300*	*Minact*
4	AL	Gadsden	286	Minact
4	MS	Gulfport	280	Resource Consultants
4	*NC*	*Kittrell*	*350*	*Management and Training Corp*
4	NC	Oconaluftee CCC	210	U.S. Dept of Interior National Park Service
5	*OH*	*Dayton*	*300*	*Management and Training Corp*
5	MI	Flint/Genesee	330	Vinnell Corp
5	MN	Humphrey	290	Vinnell Corp
6	*TX*	*Carrasco*	*415*	*Texas Educational Foundation*
6	TX	Gary	2,200	Texas Educational Foundation
6	NM	Roswell	225	Vinnell Corp
6	OK	Tulsa	300	Adams and Assoc
7/8	*IO*	*Denison*	*300*	*Management and Training Corp*
7/8	MO	Excelsior Springs	495	Minact
7/8	CO	Collbran CCC	200	U.S. Dept of Interior Bureau of Reclamation
7/8	MT	Trapper Creek CCC	224	U.S. Dept of Agr National Forest Service
9	AZ	Fred Acosta	300	Res-Care
9	CA	Inland Empire	310	Management and Training Corp
10	OR	Angell CCC	216	U.S. Dept of Agr National Forest Service
10	WA	Columbia Basin CCC	250	U.S. Dept of Interior Bureau of Reclamation
10	OR	Tongue Point	510	Management and Training Corp

Note: Sites in regular type are those that were visited in person; those in italics were slated for telephone reconnaissance only. Columns show, for each Model Center, the DOL region, state, name of the Center, its total number of participants (full-strength), and the name of the Center Operator, all as of the time the sample was drawn.

school-based learning), and on-going case management and supportive services that are provided.

- Through site visits, conducted unobtrusive observations of class-based and work-based instructional activities, with an eye to understanding their conformance to school-to-work principles (e.g., promoting high standards, integrating academic and vocational skills instruction, relying on active learning methods, teachers and work supervisors adopting a coaching approach to instruction, etc.).
- Conducted focus groups with students, to learn about their reactions to the instruction and services they were receiving.
- Studied lesson plans, textbooks and workbooks, and course outlines, to learn from another perspective about the content of and context for the instruction.

Obviously, much more extensive data collection was possible at the 23 Centers to which site visits were made, but the telephone reconnaissance was used to gather similar information, though in less detailed form, for the seven Centers not visited in person. Research team members also collected from each site their STW proposal, periodic written progress reports, and any other documents perceived to be of relevance that were made available.

CONCEPTUAL FRAMEWORK

The technical approach to addressing the key research questions for this evaluation is grounded in a conceptual model of the components of high quality school-to-work systems, drawn from an extensive body of literature, as well as the quality indicators spelled out by the Job Corps National Office in its efforts to instruct STW implementation. This model, which drives the design of the data collection and analysis, has two components. The first component, shown in Exhibit I-3, depicts the elements of partnerships and school-to-work design and implementation in a temporal model of desired youth outcomes. The second component, shown in Exhibit I-4, summarizes the quality indicators for each of these elements.

Management and Partnerships

As Exhibit I-3 shows, the presumed prerequisites of well-developed school-to-work systems include strong management and the existence of strategic partnerships among a number of stakeholders to support the school-to-work concept. Among important management issues, administrators must demonstrate strong support for the school-to-work initiative, in order to coalesce the necessary impetus behind what will surely be

Exhibit I-3
Model of School-to-Work Programs for Job Corps Youth

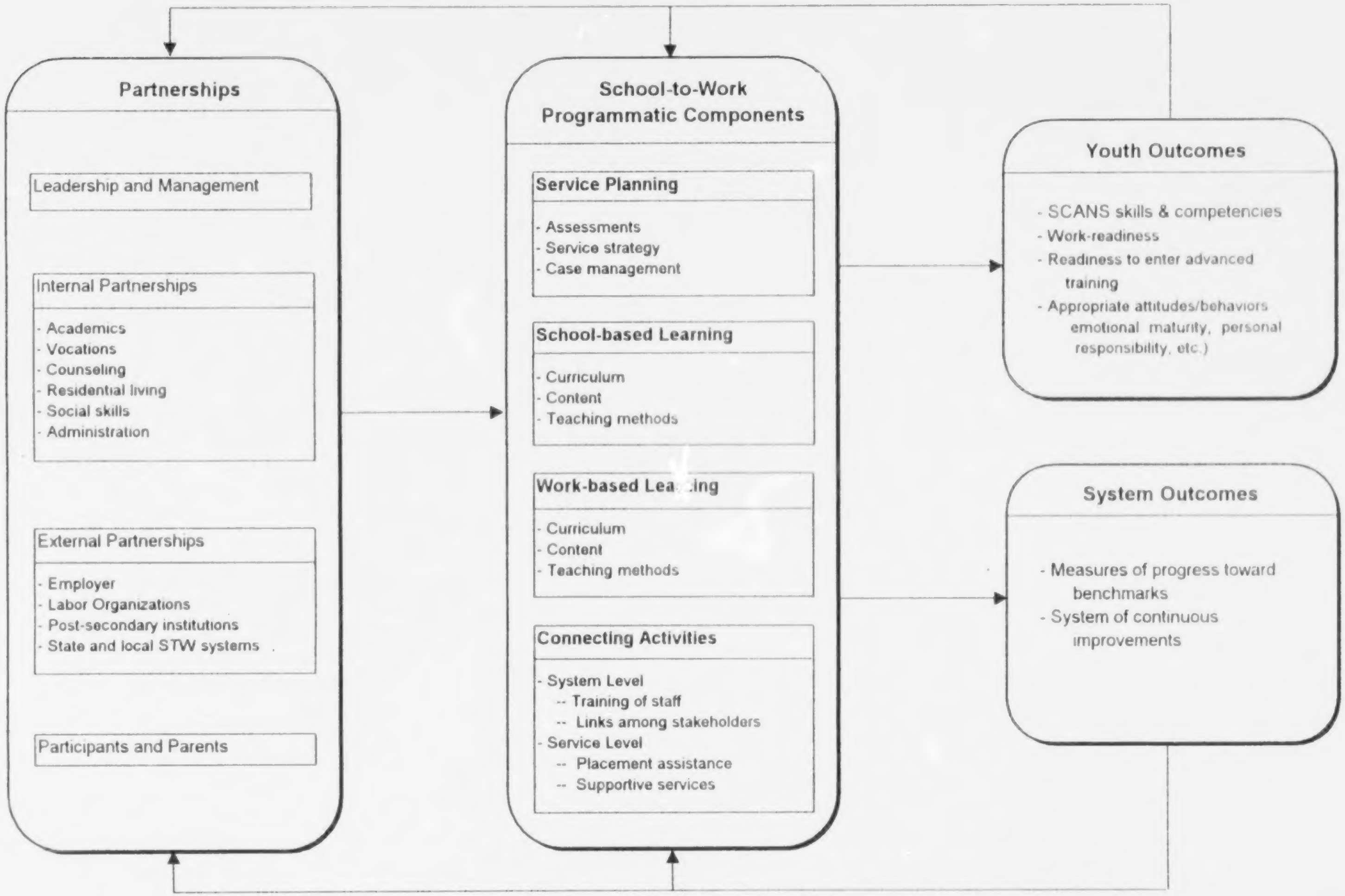
Partnerships
Leadership and Management
Internal Partnerships
- Academics
- Vocations
- Counseling
- Residential living
- Social skills
- Administration
External Partnerships
- Employer
- Labor Organizations
- Post-secondary institutions
- State and local STW systems
Participants and Parents
School-to-Work Programmatic Components
Service Planning
- Assessments
- Service strategy
- Case management
School-based Learning
- Curriculum
- Content
- Teaching methods
Work-based Learning
- Curriculum
- Content
- Teaching methods
Connecting Activities
- System Level
-- Training of staff
-- Links among stakeholders
- Service Level
-- Placement assistance
-- Supportive services
Youth Outcomes
- SCANS skills & competencies
- Work-readiness
- Readiness to enter advanced training
- Appropriate attitudes/behaviors emotional maturity, personal responsibility, etc.)
System Outcomes
- Measures of progress toward benchmarks
- System of continuous improvements

Exhibit I-4

Criteria for High Quality School-to-Work Programs for Job Corps Youth

Partnership Criteria

- Strong leadership
- Shared vision
- Strong support by stakeholders, both internal and external
- Employers play strong and active roles
- Adequate resources for partners

School-to-Work Programmatic Criteria

Service Planning

- Comprehensive assessment and careful service planning
- Responsive to cultural diversity
- High expectations
- Effective case management

School-based Criteria

- High academic standards
- Teaching in applied, integrated context with active learning
- Learning organized around pathways
- Regular assessments

Work-based Criteria

- Variety of high-quality work experiences
- Teaches competence in multiple skills, with high standards
- Worksite mentors
- All aspects of industry
- Integrated learning on a career path model

Connecting Criteria

- Ongoing professional development
- Strategies to connect work- and school-based activities
- Strong linkages
- Transportation and support services available
- Placement assistance

Outcome Criteria

- Specific goals and objectives for Job Corps youth
- Process for continuous improvement
- Assessment tools that measure ability to integrate, apply, and perform skills in real life

difficult institutional change. Similarly, all staff must share a common vision of what the initiative entails, embrace the changes, and feel a sense of ownership towards them.

Going beyond the need for strong leadership and staff commitment, Model Centers must forge partnerships to make change possible. For Model Centers, these partners will primarily be internal to the organization and should include academic and vocational instructors, as well as administrators and other staff. However, external partnerships can also be important. Most noteworthy in this regard will be the active participation of the business community, who can advise on curriculum design and make work-based learning opportunities available to students. Centers might also benefit from forging partnerships with other community agencies, including the State or local school-to-work systems and post-secondary educational institutions. Finally, students and, in some cases, their families also need to be viewed as key partners in the STW initiative. Model Centers that are able to forge strong linkages among these partners are expected to be more likely to succeed in developing high quality school-to-work programs. Quality indicators associated with management and strong partnerships are identified in Exhibit I-4 and include:

- Strong leadership by administrative staff.
- A shared vision and common understanding among all Center staff of what STW entails.
- Strong support by key stakeholders, including those that are internal and external to the organization.
- A strong and active role for employers in planning and providing a range of services.
- Adequate time and other resources for staff to jointly develop curriculum that integrates academic and vocational competencies.

The existence of these elements can facilitate the development of strong school-to-work programs and are likely to flourish when partners are able to establish a joint strategy, respect one another's needs and strengths, and overcome institutional inertia and self-protective tendencies to jointly meet the career development and training needs of participants.

Components of Well-Developed School-to-Work Systems

School-to-work program component (middle box of Exhibit I-3) include a number of separate elements, including service planning, school-based learning, work-based learning, and connecting activities. We describe each of these system elements below.

Service Planning. An effective service strategy consists of assessment, individualized service planning, and case management.

- *Assessment.* Conducting valid and reliable assessments of youths' skills and career interests can be a critical task. Assessment should determine whether a youth possesses a broader set of skills required in the labor market, such as the SCANS foundation skills and competencies, as well as their work readiness. Assessment should also be comprehensive enough to diagnose a youth's specific career interests and learning gaps and supportive services needs, so that an individualized training plan can be developed.
- *Individualized Service Strategies.* The assessment results should be used to develop an individualized service strategy (ISS) tailored to the skills, interests, and cultural background of each participant. The out-of-school youth participant should be integrally involved in setting the goals and planning the services. The service strategy should also set high expectations for what the youth can achieve in the program and be responsive to cultural diversity. The results of the process should be clear, yielding appropriate goals for the transition to work that the participant is committed to achieving. Moreover, the ISS should be flexible enough to recognize that a student's specific learning objectives and appropriate teaching strategies will change over time.
- *Case Management.* Ongoing case management can be key to identifying youths' ability to meet the school-to-work learning objectives and keeping them on target. Beginning with the process of developing the ISS and assigning youth to services, case management can be of value in shepherding the youth through the process of service delivery and monitoring the implementation of the service plan to ensure that it continues to be responsive to the youth's needs. Effective case managers should be able to quickly identify factors that are impeding the out-of-school youth's ability to meet his or her school-based or work-based learning objectives, whether there are deficiencies with the instruction itself or threats posed by external circumstances (e.g., personal difficulties, transportation problems, etc.), and whether the various program components are mutually reinforcing.

School-Based Learning. To be consistent with the principles of school-to-work, school-based learning requires considerable restructuring of curriculum, content, and instructional methods, so that youth can see the relevance of additional academic training and can get "turned on" to more schooling. Centers striving to develop a high-quality program should have all of the following base activities:

- *Career awareness and career exploration and counseling.* Comprehensive career counseling and exploration can be critical for well-developed programs. Students will generally need help in identifying their career interests, goals, and majors. Of particular interest are programs that provide options that are not traditional for youth's gender, race, or ethnicity.
- *A program of study designed to meet high academic standards.* According to the quality indicators, programs should promote high standards to ensure that participants have the skills needed for success in the workplace and for continued education and training, including post-secondary education. A dual enrollment option might also be promoted, where feasible, so that students could earn college credits.
- *Curriculum and instruction that integrate academic and vocational learning.* These might include applied methodologies and interdisciplinary team-teaching strategies, including project-based learning. In addition, instruction should incorporate aspects of industry tied to the career major of the participant. To make this work, academic and vocational teachers need opportunities to work together to develop joint lesson plans.
- *Career pathways.* Another important criterion specifies that learning is organized around an appropriate system of career pathways that are consistent with emerging industry and state standards for mastery of academic competencies and occupational skills. Good career pathways should not only include clear entry points tied to a service sequence, but they should also provide a sense of direction and purpose for academic achievement so that the youth are prepared for the work world and subsequent education (e.g., post-secondary school training). Finally, high-quality programs are expected to offer learning activities that expose students to all aspects of an industry.
- *Regular evaluations.* Participants need regularly scheduled evaluations with the teacher or counselor and ongoing problem-solving to identify the youth's academic strengths and weaknesses, academic progress, workplace knowledge, goals for the future, and needs for additional learning opportunities to master core academic and vocational skills. (See also Case management services described above.)
- *High-quality instruction, using project-based learning.* A strong design will use project-based learning and other active learning methods, train youth for skills transfer and skills durability, provide youth sufficient

> opportunities to learn, and adapt instruction to students' progress. Of equal importance are instructors who are caring adults and approach their tasks as "coaches" or mentors rather than "directors" of youths' activities. Indeed, strong mentorships have been identified as a critical component of youth programs, especially those for young people who are at risk (Mincy, 1994).

In short, the school-based learning components should teach vocational skills and workplace basics in an applied, integrated context with active academic learning, and should afford its youth participants opportunities for post-secondary education, including both academic and further occupational/job training opportunities.

Work-Based Learning Components. Work-based learning is an important complement to conventional school-based learning and a key component of a well-developed school-to-work system. Whether it occurs off-site at an actual workplace or on-site as a simulated workplace, its promise can be fulfilled only if the experience is of high quality. Hamilton and Hamilton (1997) identify seven principles that make work-based learning effective:

- Youth gain basic and high level technical competence through challenging work.
- Youth gain broad technical competence and understand all aspects of the industry through rotation and projects.
- Youth gain personal and social competence in the workplace.
- Workplace teachers convey clear expectations to youth and assess progress toward achieving them.
- Youth learn from adults with formally assigned teaching roles.
- Youth achieve high academic standards.
- Youth identify and follow career paths.

These principles are reflected in the work-based quality criteria that we have identified in Exhibit I-4. These criteria indicate that high-quality work-based learning activities must allow youth to have a variety of high-quality work experiences and on-the-job training tailored to their individual needs, adult worksite mentors, a focus on all aspects of the industry, and learning that is tied to what is acquired in the classroom.

Connecting Activities. A number of separate activities fall under this category, including those at both the system and service levels:

- Providing ongoing professional development for worksite and school-based staff to ensure understanding of school-to-work components and the provision of high-quality services for out-of-school youth.
- Providing assistance for staff to integrate academic and occupational learning into each component.
- Encouraging the active participation of employers in a variety of roles.
- Facilitating linkages between Job Corps and post-program outcomes, including post-secondary institutions.
- For youth who have terminated, providing assistance in finding an appropriate job or continuing their education. Out-of-school youth need guidance on immediate plans after completion of their program. They must be made aware of their options, informed well enough in advance to prepare to exercise these options, and be given necessary transition assistance. Opportunities for further education and training should not be overlooked.
- Making linkages between human resource service organizations and academic institutions to meet the needs of individual youth (e.g. pregnant and parenting teens), and providing for transportation and other supportive services that are specific to the needs of out-of-school youth.

Outcomes

The far right box of Exhibit I-3 identifies the outcomes that high-quality school-to-work initiatives strive to achieve. At the level of the young participant, completion of the program should enable the youth to be work-ready and able to enter into academic training or advanced vocational training. While youth targeted by these programs will have characteristics that may make them difficult to serve, high expectations should prevail and youth should complete the program possessing an array of SCANS skills and competencies that can help them in future careers. Moreover, youth should demonstrate appropriate attitudes and behaviors, such as those that would be reflected in their ability to communicate and interact productively with others, manage emotions, engage in problem solving and critical thinking, and accept personal and social responsibility.

The challenge is for the Job Corps projects to not only achieve these objectives but also to measure them, which, as the feedback loop in Exhibit I-3 suggests, should be used for improving their performance. To do so they should develop benchmarks of achievement, monitor their progress towards achieving those benchmarks, and modify their program designs or service strategies to continuously improve.

II. THE STARTING POINT FOR BUILDING STW SYSTEMS IN THE JOB CORPS CONTEXT

By funding the Model Centers, DOL has taken a first step in what it sees as a far reaching effort to inculcate STW principles throughout the Job Corps system as a whole. The National Office has made clear, in guidance it has issued to the field, that it is promoting systemic reforms, to ensure that school-to-work principles are fully integrated as a coherent system, rather than consisting of a mere "add-on" program. Transformation of this sort will obviously be a challenge and will require that administrators and staff re-evaluate their traditional ways of operating and look for ways of revitalizing Center practices and service strategies.

The Model Centers have been forerunners in this endeavor, and their efforts are detailed in subsequent chapters of this report. However, in understanding the progress they have made towards implementation, it is important to appreciate as well the starting point for their efforts. Along these lines, we identified during our site visits and telephone reconnaissance importance ways in which the Centers we studied had a strong foundation from which to build integrated STW systems. In other ways, by contrast, their traditional ways of providing vocational and academic skills instruction constitute a challenge to STW implementation that must be overcome. In this chapter, we review this context. Note that we are attempting to describe something about how Model Centers—and Job Corps Centers more generally—have operated *before* the formal introduction of STW concepts.

JOB CORPS AS A NATURAL CONTEXT FOR STW

In some important ways the Job Corps Centers we studied provide a natural context from which to build STW systems. By this we mean that, before they had attained Model Center status—indeed, before most of them had even heard of school-to-work as a concept, many of these Centers demonstrated practices that echoed some of the key principles of STW and related concepts drawn from high-quality youth programs. To some degree, these practices stemmed from Job Corps' standard operating procedures, as detailed in the *Job Corps Policy and Requirements Handbook*. Some of these principles include:

- Providing career assessment and career counseling to all young people, to help them identify career interests.

- Mentoring, or, more generally, offering young people positive role models and fostering close relationships between them and caring adults.
- Teaching general workplace competencies.
- Providing context-rich instruction with active learning methods, at least for vocational skills instruction.
- Providing some opportunities for project-based learning, such as in Vocational Skills Training (VST) Projects.
- Formulating Training Achievement Records (TARs) to incorporate (albeit to a limited degree) competencies for academic skills taught in a career context.
- Providing on-going assessment of the youths' progress, along with counseling services and placement and post-placement assistance.
- Involving business and labor in the establishment of curricula.

By noting that Centers have been demonstrating these practices to some extent even before their formal adoption of STW, we do not mean to imply that STW is something that the Model Centers "have been doing all along," a claim that was frequently voiced in many of the Centers we visited. On the contrary, the integration of all Center activities into a full system of school-based and work-based activities, including academic and vocational learning, along the lines suggested in the guidance issued by the Job Corps National Office, seems to us to be a long and arduous road along which most Centers have only started to travel. Nonetheless, the practices identified in the list above constitute a strong foundation on which to build a STW system. As such, a discussion of them constitutes a natural starting point for the evaluation.

Career Assessment and Counseling. Young people served by STW systems, whether in-school or out-of-school youth, will need career guidance and counseling to help them identify their career interests and select a career major. For this reason, these activities are specified as required components of school-based learning in the School-to-Work Opportunities Act (STWOA).

However, Job Corps Centers have long recognized the need to provide the young people they serve with assistance in career planning. For this reason, the Occupational Exploration Program (OEP) is a formal part of the Job Corps curriculum and is presented to enrollees shortly after they arrive on Center. It typically consists of formal testing, using any one of a number of career assessment instruments, and a brief exposure to some or all of the vocational training areas available on Center. That latter includes giving new enrollees the opportunity to shadow other students in their vocational skills courses and gain brief hands-on practice. Counselors then use the assessment results and draw on the youths' own stated preferences to help the enrollee identify a vocational area to pursue. Moreover, and again echoing themes identified in STWOA, we noticed that efforts were often made during this process to encourage women to think about occupational areas that are non-traditional for their gender. For example, in some Centers, women are required to select at least one non-traditional occupational area from among the several they shadow.

If there is a major weakness in this process from a STW framework, it is that OEP is effectively telescoped into an approximately two-week period, at the start of a young person's time on Center, whereas a multi-year process of career exploration, assessment, and counseling was envisioned by the crafters of STWOA.

Mentoring. Having young people forge strong relationships with adult role models has long been recognized as an important ingredient of successful youth-development programs. In line with this, the STWOA identifies mentoring (both workplace mentoring and school-site mentoring) as an important program component. In keeping with these principles, the Job Corps Centers we visited exhibited strong, caring relationships between Center staff and program enrollees. During our site visits, field researchers were struck time and again by spontaneous displays of warmth and evidence of caring interactions between students and their instructors or other Center personnel.

Teaching General Workplace Competencies. Well-developed school-to-work systems should provide opportunities for youth to not only attain academic and vocational skills, but also social skills and general workplace competencies. The importance of doing so is made clear by research findings that show that employers highly value these softer skills, but often fault new workers for displaying weak work attitudes and interacting poorly with work supervisors, customers, and fellow workers. For these reasons, the STWOA mandates "…instruction in general workplace competencies …(to develop) positive work attitudes, and employability and participative skills."

Once again showing that it is to some degree ahead of the game, Job Corps Centers have long required Social Skills Training (SST) and World of Work instruction (WoW), and instructors and counselors in the sites we visited appeared to vigorously promote positive and appropriate conduct among students. Moreover, recent guidance issued by the National Office emphasizes that employability skills are to be reinforced throughout all activities in which youth participate.

Using Active Learning and Context-Rich Instruction. As discussed in the previous chapter, an underlying tenet of the school-to-work movement is that young people learn better when they are actively engaged in the learning process and when instructional materials are presented in a meaningful, "real-world" context that provides ample opportunity for the practical application of learning. The Job Corps program's traditional approach to providing instruction in academic skills is generally quite far from this mark, with its focus on workbook drill-and-practice exercises and computer-aided instruction. Vocational skills instruction, by contrast, has traditionally been characterized by hands-on, practical-learning exercises. Lectures are almost never used. Instead, students are very likely to be "learning by doing," working either singly or with others to learn, practice, and master the skills associated with their trade, under the watchful eye of their instructor. Important in this context, vocational instruction of this sort has been a long-standing practice in the Centers we visited, and not merely prompted by their attaining Model Center status. Moreover, the recently completed process study associated with the Job Corps National Evaluation suggests that these practices are quite widespread.[1]

The Use of Project-Based Learning. Project-based learning (PBL) is a natural extension of the active learning principles described above, and for this reason it too is a highly valued component of well-developed school-to-work systems. Through well-designed projects, young people can learn and apply a broad range of skills—academic, vocational and SCANS skills, including problem-solving and thinking skills—and do so in what can be a highly motivating context. Moreover, they can see the inter-relationship of the skills they are learning and come to understand their practical application for producing tangible products or services.

Again suggesting a foundation on which Model Centers can build, Job Corps Centers have long utilized project-based learning through vocational skills training (VST) projects. Typically these projects are carried out on just a limited basis and primarily for the construction trades, and, again, they arise more from vocational rather than academic instruction. Nonetheless, they potentially provide an excellent opportunity for young people to learn and practice skills by carrying out a project of practical benefit to the Center (e.g., by refurbishing a building on Center). Moreover, often times multiple trades are involved in a single VST project, so that the inter-relationship between the various skill areas is made clear. Thus, although VST is not developed to the extent that would be desirable from a STW framework, it nonetheless provides a sound foundation on which to build.

---

[1] T. Johnson, M. Gritz, R. Jackson, J. Burghardt, C. Boussy, J. Leonard, and C. Orians, *National Job Corps Study: Report on the Process Analysis*. Report submitted to the U.S. Department of Labor: February, 1999.

Formulating Competencies that Integrate Academic and Vocational Skills. In the Job Corps context, a Training Achievement Record (TAR) has been developed for each vocational area, spelling out in detail the specific work-related competencies that are to be attained. This approach has several advantages. First, it leads to an emphasis on competency-based instruction, drawing attention to skills to be mastered rather than just abstract knowledge to be attained; in other words, it focuses on what young people *should learn to do*, and not on what they *should know*. Second, it provides a ready mechanism not only for making students aware of what it is that they are expected to learn upon completion but also for providing them with an on-going assessment of their progress. Third, and most important from a STW standpoint, the TARs have integrated the teaching of academic skills into vocational skills instruction on a regular (albeit limited) basis, because instructors need to be sure that students have mastered the reading and writing skills they need for their trade. For example, the TAR for Retail Sales includes the following duties and tasks: count money and make change, calculate unit prices of multiple priced items, calculate tax and discounts, etc. For Business/Clerical occupations, we have: correctly use prepositional phrases, spell correctly, correctly use compound sentences, demonstrate the ability to compose and proofread effective business communications, and so on. Although the integration of academic and vocational skills instruction has not proceeded as far as DOL's vision for STW leads, the TARs nonetheless provide a sound vehicle on which to base further program improvements along these lines.

Providing Ongoing Assessment, Counseling, and Placement Assistance. The STWOA identifies as a required school-based learning component "regularly scheduled evaluations involving ongoing consultation and problem solving with students…to identify their academic strengths and weaknesses, academic progress, workplace knowledge, goals, and the need for additional learning." Along these lines, we have already mentioned how important it is that the TARs provide a mechanism for charting a student's progress towards mastering the vocational skills needed for program completion. However, additional elements in place at all or most Job Corps Centers also provide for ongoing assessment and evaluation. For example, the Progress and Performance Evaluation Panels (P/PEP) have generally been required at Job Corps Centers as a means for providing students with periodic evaluations of their progress in a range of skill and behavioral domains related to their stay on Center, including with respect to academic skills, vocational skills, social skills, and dorm living. Similarly, the Computer Managed Instruction (CMI) system formally charts a student's progress towards the attainment of his or her required academic skills, making clear exactly what skills remain to be mastered.

Coupled with routine assessment, counseling also constitutes an important component of Center operations and occurs even before a student arrives on Center. Thus, Center staff and contractors prepare students for their arrival, and throughout their stay Centers provide opportunities for periodic one-on-one interactions between students and staff. Following through the process, and representing a connecting activity as specified in the STWOA, youth are provided with placement and post-placement assistance to help them make the transition from the Center to employment or further training. This assistance is provided through the World of Work curriculum, where resume writing and job search skills are typically taught; through placement contractors, who are charged with helping exiters find employment; and through post-placement assistance services, such as that provided by Women in Community Service (WICS) and Joint Action in Community Service (JACS), who do what they can to help ease the youths' transition to independent living.[2] We are not equipped to make judgements here about the quality of these interactions, but are merely pointing out that mechanisms to provide counseling services and placement assistance have been in place for quite some time.

Involving Business and Labor. The STWOA emphasizes that business and labor should be active participants in school-to-work programs, and can and should play a variety of roles, including helping to design STW systems, developing curricula, and providing work-based learning opportunities. Yet Job Corps Centers have long fostered business and labor involvement, albeit in somewhat limited roles. Thus, employer and industry groups are involved in reviewing and refining the TARs, and each Center in principle should maintain a Vocational Advisory Committee made up of business and labor representatives. Similarly, labor groups are contracted to provide vocational skills training in some vocational areas. Finally, employers have long been cultivated as sources for work slots as part of the Work Experience Program (WEP). Business and labor groups will need to expand their roles to promote well-developed STW systems in the Job Corps context, and, indeed, the Workforce Investment Act calls upon Job Corps Centers to do so, by establishing a Business and Community Liaison at each Center and forming industry councils made up primarily of employers. But, importantly, Centers can build on their existing linkages with business and labor in doing so.

---

[2] The National Office is currently restructuring the role of placement contractors as part of a Career Development Services System (CDSS). Under this new system, the National Office is giving DOL Regional Offices the flexibility to determined the roles of placement contractors. The National Office is also reconsidering the role of WICS and JACS. Whatever the outcome of these efforts, doubtless strong support for placement and post-placement assistance will be provided. Indeed, the Workforce Investment Act and its accompanying regulations require that post-placement services be provided to Job Corps graduates for at least 12 months.

TRADITIONAL JOB CORPS PRACTICES THAT IMPEDE STW IMPLEMENTATION

If the factors identified above constitute a foundation on which to build STW systems, some prescribed practices that we encountered in the Job Corps Centers we visited can be construed as impediments to implementation.[3] These include:

- Typically sharp divisions between academic and vocational skills instruction, each with their own prescribed curricula.
- In some cases, a focus on training young people for specific trades, rather than for a range of jobs within a skill hierarchy (e.g., the concept of exposing youth to "all aspects of the industry").

Sharp Divisions between Academics and Vocations. Although the PRH has recently been revised to allow Centers more flexibility, previous versions of this handbook prescribed a separate curriculum for academic and vocational skills instruction. Except in limited ways (such as, as noted above, where TARs explicitly reference academic skills needed for a particular trade), the curricula for the most part have not exemplified the integration of academic and vocational skills instruction.

---

[3] Note that we are describing here standard Job Corps organizational features that on the face of it constitute impediments to STW implementation. Subsequent chapters of this report present a discussion of policies or practices that practically speaking impeded implementation that we deduced from the process of data collection while studying the Model Centers.

To the extent that Centers adhere rigidly to this formula, the integration of learning is made difficult. Thus, young people have traditionally been assessed with respect to their academic skills and presented with a course of instruction to redress skill deficiencies (e.g., using the CMI system). Similarly, once youth enter their selected vocation, their course of study is laid out to enable them to master the TAR skills and competencies. As a consequence, in the typical Job Corps Center a young person's academic and vocational instructors do not engage in joint curriculum development, and they have little time to do so even if they wanted to. Similarly, in following the prescribed curricula typically no systematic effort is made to craft the youths' academic course work around themes drawn from their career choices, nor are vocational curricula explicitly designed to teach in context a broad array of academic skills that might be important to learn.

Moreover, the design of curricula in this way has given rise to Center staff's habit of thinking of academics and vocational training as discrete modules. For example, a typical configuration within Job Corps Centers is for academics and vocations to constitute two separate departments. Each department has its own manager, along with a cadre of instructors. In many cases, there is very little interchange between the two; each department operates on its own, without respect to the other, and young people will usually be taking both academic and vocational courses, with little effort to draw linkages between them.

This situation, we hasten to add, is no worse than what might be encountered in the typical secondary school, with its equally sharp divisions between academic and vocational departments. Moreover, turf battles, along with the lack of joint planning time, have also been identified as major impediments to the integration of academic and vocational skills instruction in the high school context; similar consequences have resulted here. To this degree, changing traditional divisions between academics and vocations clearly stands as an important requirement if true integrated STW systems are to develop in Job Corps Centers. As noted, recent revisions to the PRH encourage Centers to be more innovative along these lines, which moves Job Corps in the right direction.

Training for Specific Trades vs. a Skill Hierarchy. One objection that has sometimes been voiced against STW as an organizing principle for learning is that it limits subsequent career opportunities. This notion arises from the misguided vision of STW as a variant of vocational education, rather than as an entirely new system for learning. In sharp distinction to this image, however, well-developed STW systems should open up rather than foreclose subsequent career options. This concept is well expressed in the STWOA, which speaks to the importance of exposing youth to "all aspects of the industry" and promoting opportunities for post-secondary education and further training. In keeping with this, STW practitioners typically think of youth as selecting "career majors" or "career paths," rather than as training for specific occupations or trades.

Although practices vary from Center to Center and from one vocational area to the next, it could be argued that at least in some vocational areas the focus is typically more on the latter rather than the former. Thus, in many cases youth are trained, and it is expected that they will obtain employment upon graduation, in a specific entry-level occupation or in a small class of closely related occupations. The challenge, as STW in the Job Corps context moves forward, is to ensure that youth have the specific training they need to be immediately marketable upon graduation—essential to meet the need that many exiters will have for immediate employment and for Centers to meet performance accountability requirements with respect to quality placements—while providing them with the foundation for continued career growth after the initial placement.

CONCLUSION

We have argued in this chapter that Job Corps constitutes a natural context for implementing STW systems, because traditional Job Corps practices to some degree provide a solid foundation on which STW principles can be laid. These traditional Job Corps practices, which had been employed in the Model Centers we visited even before they had endeavored to implement STW systems, include attending to career assessment and counseling; enabling youth to form close relationships with adult role models; teaching general workplace competencies and social skills, and not just vocational and academic skills; using active learning methods, project-based learning, and other context-rich instructional methods for teaching vocational skills; using competency-based instruction that provides a mechanism for teaching academic skills in a career context; providing ongoing assessment and placement and post-placement assistance; and promoting business and labor partnerships.

By pointing out these parallels between things that many Job Corps Centers have traditionally done and STW principles and practices we do not mean to claim in any sense that Job Corps is "already doing STW." However, it does suggest that some component pieces are in place. What remains to be accomplished are: 1) embellishing and developing these individual pieces so that they can attain their true potential in a STW context, and 2) pulling the various pieces together to form a coherent and integrated system that affects all students. These have proven to be substantial challenges, as the remaining chapters in this report will suggest.

III. THE SCHOOL-TO-WORK VISION

***Vision**: the act or power of anticipating that which will or may come to be; a vivid imaginative conception or anticipation; the ability to perceive something not actually visible, as through keen foresight.*

In drafting the Job Corps school-to-work initiative, the National Office sent a clear message that Centers should examine their operations and identify how they might align their training and strategies for "...institutionalizing school-to-work throughout Center operations." This statement began to define the national vision, and it was further articulated in the Job Corps School-to-Work Implementation Plan.

During our initial round of site visits, we noticed that Centers appeared to articulate different views of the intent, goals, and focus of STW. We were therefore interested in categorizing these differences, and also set about to examine the extent to which each Center adhered to sound STW principles, ascertain the degree to which the STW vision was consistently communicated to stakeholders, and analyze how these factors influenced implementation and operationalization of the various STW components (school-based, work-based, and connecting activities).

Our approach to this analysis involved several steps. We first reviewed the original concept papers submitted by the Model Centers and recorded the intent, goals, and objectives articulated in each proposal. Next, we reviewed written reports of observations and interviews that occurred during the two rounds of site visits to gain insight into how individuals at all levels understood the intent, goals and objectives, as a driving force in both implementation and operationalization. In certain instances, we spoke with site visitors to clarify and/or add to data presented in their written reports. This information was incorporated into the data collected on each Center's original concept paper in order to develop a broader view of each Center's vision and how it evolved. We again reviewed the written reports to determine how individual Centers implemented the three STW components, and then analyzed how the articulation and communication of the vision affected implementation of them. Our next step was to review the descriptions of each Center's vision in an effort to identify common themes. Finally, we reviewed and recorded implementation outcomes of the STW components for each variation.

Based on data collected through the two rounds of site visits our analysis suggested that the vision held by Model Centers could be catalogued into the following four categories:

1. Shared vision, consistent with overarching school-to-work principles (evident in almost one-third of the Centers);
2. Shared vision, partially consistent with STW (found in almost 15% of the Centers);
3. Shared vision consistent with STW among the Center's leadership, but not fully established with other Center staff (evident in about one-third of the Centers); and
4. A vision that was not commonly shared among Center staff and was not consistent with STW (demonstrated in about 15% of the Centers).

We were also interested in determining if the Centers' vision had changed during the course of implementation, to what extent change occurred, and how that evolution influenced implementation in the later stages of the initiative. Building on the analysis from the first round of site visits, we reviewed written reports of observations and interviews from the second round of site visits and telephone interviews to gain a sense of how the vision was evolving among different stakeholders (staff, students, employers, etc.).

The next section of this chapter will be devoted to a discussion of the variations we found with respect to the vision held by Centers, and we will describe how that vision affected implementation. We will conclude with a summary of our observations.

THE VARIATIONS

Our findings suggest that the majority of the Model Centers retained approximately the same vision with respect to STW over the two years of our study. However, significantly, we found that more than one-fourth of the Centers had demonstrated growth in their vision to at least some degree (i.e., from variation #4 to other categories), suggesting a gradual evolution towards a more mature understanding of school-to-work over time.

Variation 1: Shared vision consistent with overarching school-to-work principles

This variation was evident in approximately one-third of the Model Centers, which, interestingly, is the same percentage as in our preliminary observations after the first round of site visits. Typically, Center Directors and School-to-Work Coordinators articulated STW as "...a major step in restructuring academic and vocational programs," a means to "...connect all learning to work and other life applications," a means to "...consciously connect work to on-Center academic programming," an approach to a "...seamless integration of occupational skills training, basic education skills and workplace skills" (a broader definition than traditional social skills or job keeping skills), and a strategy to "...involve and engage the broader community in [the] training and development [of its students]." For the most part, individuals at all levels of these Centers' organizations and their partners (students, academic and vocational instructors, administrators, employers) could articulate the intent of the initiative, and how it had changed how work and learning should be viewed.

At these Centers, this clear, consistent vision has provided a steady focus that has encouraged balanced development and implementation across all three STW components. However, the potential strength of a common vision is often offset by other influences that impede progress and result in an uneven implementation effort. Thus, Centers in this group include those with a sound vision of STW that led to effective implementation, as well as those who were unable to act on their vision to implement real change.

At one extreme, in one Center the STW initiative represented an opportunity to expand on a deliberate attempt to develop an "applied academics" curriculum that had been started about two years before the grant period. This Center's vision of STW was, therefore, focused on changing and improving the existing system to make quality connections between what is learned in the classroom and what is learned at work. This focus sent a clear message to Job Corps personnel, employers, and the community to move beyond traditional Job Corps approaches to implement an integrated system of education and training.

Following from this vision, staff development at this Center received a high priority—staff received training provided by in-house staff, outside consultants, and nearby school districts and colleges. Worksite supervisors also typically received training on the STW vision and intent, academic instructors regularly visited worksites, and information about the students' overall progress in all activities was shared with instructors, case managers, supervisors, support personnel, and the students themselves.

Based on this strong foundation, both academic and vocational staff understood their roles within the larger system and the changes the Center was attempting to make in relationship to school-based, work-based and connecting activities. Thus, they viewed their responsibility as developing and refining curricula and activities to reflect a connection between social and vocational skills, academics and work, and to provide a seamless program of school-based instruction. This shared, consistent vision also translated into increased employer involvement in curriculum development. As one Center manager said, "Until we implemented STW at our Center, there was no real organized employer input into how we conducted our business at the Center."

Ironically, as this development and implementation continued, the need for additional efforts to enhance and improve new strategies and approaches expanded the work to be done. Changes to one element of the "system" affected virtually every other element. This created a tension between development and implementation that slowed efforts and resulted in a re-thinking of the implementation process. This realization has led the Center Director to slow the growth in off-Center STW placements until systems issues, such as transportation and scheduling, were resolved. Thus, moving to scale with off-Center work-based learning experiences did not occur to the extent anticipated. Nonetheless, the slow-down helped re-focus energies on other work-based activities such as the "Groundhog Day" job shadowing event, in which all active Job Corps students participated. Moreover, the hiatus promoted vocational and academic instructors to focus on applied academics activities, which are now Center-wide and affect all students.

Other Centers in this category have also made important, although more incremental, progress. Despite their clear vision, their efforts have been slowed by various obstacles to implementation, including a lack of resources, limited planning time for instructors, logistical difficulties (e.g., relating to transportation), turnover of key staff, and so on, which have limited the degree of progress and movement to scale. These logistical issues will, in all likelihood, continue to be "bumps in the road" that will need persistent attention throughout operationalization.

Interestingly, the number of Centers that we grouped in this category—approximately one-third—did not change from the first to the second round of site visits. However, not all of the same sites were in this category over time. Thus, a few slipped, mostly to variation #3, while an equal number moved to this category, usually from variant #2. In any case, it does not appear that more Centers are arriving at a shared vision fully consistent with STW principles, which is rather disappointing to note.

Variation 2: Shared vision, not fully consistent with the school-to-work vision

Almost 15% of the Model Centers demonstrated characteristics that placed them in this category. For the most part, these Centers convey a focus on STW as a program to provide off-Center work experiences to allow students to practice what they are learning, particularly in vocational training. Terminology reinforces this narrow interpretation of school-to-work (e.g., "Students are placed in STW", "Students doing STW are usually off-campus at worksites."). This permeates the Center's culture, even to the students: "Sure, school-to-work—you attend school and then you go to work... it's easy," and "School-to-work is when you go out on a job."

As a result, energies continue to be spent on developing *work-based activities*, and "STW" is often a stand-alone, somewhat enhanced work experience activity that was typically disconnected from vocational or academic learning. STW Coordinators at these Centers have been enthusiastic about the dimension that work-based experiences add to the Center's overall program, and their focus appears to be on ensuring that logistical considerations (transportation, off-campus meals, scheduling, evaluations, etc.) are addressed. Typically, STW Coordinators at these Centers essentially became coordinators of work experiences that have been renamed "school-to-work" (in fact, the STW Coordinator position often replaced that of the Work Experience Coordinator in the Centers' budgets).

Regarding *school-based activities*, efforts to get vocational and academic instructors involved have been sporadic. At some Centers, few academic instructors see a role for themselves in STW. Other Centers, primarily due to high turnover among academic instructional staff, have been unable to maintain consistency in their efforts. This has led to uneven and disconnected attempts to implement school-based activities, resulting in less conformance to STW principles in these components.

In relationship to *connecting activities*, these Centers have focused primarily on outreach to the employer community and preparing students for their work-based experiences. Since the emphasis is on developing the work-based component—often to the exclusion of addressing other areas—worksite development has received the highest priority, resulting in large numbers of sites, a good variety, and a fairly stable employer base. Employers were not generally involved in providing input on academic curriculum or other activities beyond being guest speakers at the Centers to talk about the labor market, job characteristics, and employer expectations. There was also an overall lack of connections with postsecondary institutions. Because of the limited view of the intent of STW, worksite supervisors/employers were unaware of STW principles, clear training plans that connected work and learning were not evident, the focus appeared to be more on work maturity skills development, and academic learning and vocational/workplace skill development, when it occurred, was coincidental to the process as a whole. Students however appeared to be relatively prepared for their work-based experiences and tended to do well within the context of the Centers' and worksites' expectations. This view also translated into a relatively uncomplicated and consistent implementation process regarding students' responsibilities on-site, what employers expected from the students, what employers were asked to do relative to training and evaluation, and Center support[1].

Variation 3: Shared vision consistent with STW among leadership, but not fully established with other Center staff

This variation, found in approximately one-third of the Centers, represents a certain degree of growth experienced by several Centers toward developing a vision consistent with overall STW principles; it represents a maturation of the vision of STW, at least among key Center staff. While Centers in this category share several characteristics with those in the variation #2 group—such as a focus on the work-based learning component, priority placed on outreach to employers, and so on—they have begun to some degree to expand efforts to integrate academic and vocational training, and connect the learning that occurs on-Center with the learning taking place at worksites or elsewhere. Most of these Centers have also implemented one or more innovative efforts to allow the expansion to take place.

For example, two Centers have emphasized post-secondary education and training for their students through the Advanced Career Training (ACT) program. Students are encouraged to take advantage of post-secondary opportunities (including attaining an associate degree) during their stay at the Centers, and staff assist in removing barriers to participation and providing support. Another Center has taken a proactive approach to involving parents by initiating a formal effort to get students' parents engaged in assuming responsibility for their child's work-based learning outcomes. Other innovations included developing a partnership with a local high school that allows students to acquire a high school diploma; placing students at non-profit worksites for a beginning-level work-based learning experience that focuses on developing employability skills prior to a more sophisticated placement in the students' trades; co-location of academic and vocational instructors, counselors and other staff in trade-specific clusters; and securing state school-to-work funding for a consortium of several counties to link training slots with high schools and vocational-technical schools.

---

[1] These Centers also faced logistical issues such as transportation and scheduling, but the shared vision, we believe, encouraged staff to work together to address these problems in order to achieve the STW goals.

These efforts indicate evidence of positive incremental change within the overarching theme of STW. Nonetheless, most Center staff still fail to embrace or understand their role in the Center's evolving culture, or still equate STW with work-based learning and thus as something that need not entail a wholesale transformation of the Center's approach to learning. Efforts by leadership to convey a clearer or more complete vision of STW to staff have been met by resistance or confusion.

Most Centers in this category were formally found in variation #4, and, thus, some degree of maturation has occurred. Our analysis suggests that one of two events occurred that encouraged this forward movement. First was stability in the Centers' leadership and their gradual enhanced understanding of STW through on-going technical assistance efforts. Second, absent overall leadership stability, a particular individual in a leadership position (often the STW Coordinator, Education or Vocations Manager, or Center Director) had a sound personal vision of STW, as well as a strong commitment to its principles and concepts, and was brought on board. Due to the organizational culture at the Centers, this individual was given a degree of authority or credibility that influenced how other leaders at the Center perceived STW.

Variation 4: Vision not commonly shared and not consistent with the school-to-work vision

Just over 15% of the Centers do not share a common STW vision, nor is it consistent with the overall principles of school-to-work. Encouragingly, almost one-half of the Centers were in this category at the mid-point of our evaluation, suggesting notable movement out of this category over the two years of this study; most Centers that moved out of this category are now included in variation #3, with one in variation #2. Unfortunately, the Centers that remain in this variation continue to demonstrate confusion about what STW entails, and thus implement its components and strategies unevenly or with substantial distortion of the true underlying principle.

The theme most frequently observed at these Centers is a top-down approach that makes building a shared vision difficult. In many Centers, a Steering Committee (or other similar entity within the Center) and top leadership were the only personnel involved in planning for STW. Staff, who were required to implement the initiative, felt out of the loop, often resulting in confusion and resistance to the changes necessary to modify curricula and strategies. An instructor at one of the Centers summed up the general feeling at most of these Centers when he said there were "too many perceptions about what STW is. We do not share the same language, and at first, we didn't realize it had anything to do with the classroom. We thought it was only about working." And, as one STW Coordinator stated, "I can't force staff to work together."

Interestingly, in each of the Centers included in this variation, the vision of STW was narrowly defined as an enhanced work experience or as a tool to achieve placement goals. This dovetails closely with the limited focus described in variation #2, with similar results relative to implementing and operationalizing school-based activities. Work-based activities in variation #4 were frequently little more than enhanced work experiences, again similar to what was found in variation #2. There was not a clear understanding of STW principles, student training focused on work maturity skills development, work and learning were not connected, and skills development was coincidental and isolated.

The primary difference that we noticed between Centers in variations #2 and #4 centered on *connecting activities*. Efforts to integrate social skills training were not evident in variation #4 Centers, and often students were unprepared socially for the rigors of the work-based activity. This translated into Coordinators needing to spend time troubleshooting and resolving problems, a high rate of student turnover, and the need to re-establish relationships with employers in order to place additional students—or needing to develop additional worksites because employers no longer wanted to participate. Few Centers in this variation provided training to employers/supervisors, often resulting in employer confusion about their roles, responsibilities, and the overall process. Regarding outreach, STW Coordinators did not have a new "product" to sell (better prepared students, a vision of developing a future workforce, connecting young people to career paths, etc.) and experienced difficulty in obtaining buy-in from employers who saw little difference between school-to-work and the work experience program with which they were familiar. Because the vision was not commonly articulated or shared, resolution of logistical issues on-Center took longer and were often more difficult to resolve. Instructors and other staff were confused about the differences between non-paid internships, non-paid work experiences, and paid work experiences, and often communicated this confusion to students, leading to tension and misconceptions.

Most Centers in this variation appeared to experience a high degree of staff turnover, particularly in key leadership positions. In one instance, the Center Director position was vacant for an extended period of time; in another, the contract for the Center Operator was terminated, and large-scale personnel changes were made. Others have had multiple changes in Center Directors, STW Coordinators, and/or Vocational and Academic Managers and instructors. Creating a common, consistent vision within environments such as these is a nearly impossible task.

CONCLUSION

Two things stand out as key to implementing a complex initiative that calls for substantial systemic and organizational change. The first is the need for a clearly articulated vision that is shared by all stakeholders. In the two variations where this occurred (variation #1 and #2), Centers seemed to experience greater progress in achieving specific goals and objectives of their local program. The shared understanding of what would be accomplished, how it would be structured, the benefits derived, and the results expected appeared to contribute to a wider acceptance of the efforts required to implement the changes necessary to realize the vision. Generally, there was "buy-in" to the goals, objectives, and processes required at all levels, less tension resulting from change to the status quo, an increased focus on quality, and a more intentional and purposeful approach to implementation, resulting in a smoother transition to new concepts, processes, and ways of doing business.

As important as a shared vision, we found during our analysis, is the consistency with the vision in the larger school-to-work context. Centers that developed a common vision consistent among all stakeholders were in two categories: those that aligned their vision with sound STW principles (approximately one-third of the Model Centers), and those that defined their vision more narrowly around one particular STW component, usually work-based learning (approximately 15% of the Centers). With few exceptions, the one-third of the Model Centers that understood and articulated STW principles appeared to implement STW as a system that connected activities, individuals, and organizations around common goals and objectives. These Centers were also more inclined to consider STW as a means to engage *all* students in *all* STW activities and components.[2]

The two-thirds of the Model Centers not in this category seemed to miss important parts of the message of what STW was all about. Most commonly, they equated STW with work-based learning, including those whose staff coalesced around this vision (the 15% of the Centers in variation #2), those whose leadership might have embraced a broader vision but whose staff did not (the one-third in variation #3), and those that focused on WBL but without a clear sense of how it differed from traditional work experience (the 15% of the Centers in variation #4). The emphasis on "all students" seemed to be missing at the Centers that did not share an understanding that STW is ultimately about changing what, how, and where learning occurs, and how that learning is connected to the needs of the labor market and young people's long-term self-sufficiency.

If the focus was primarily on the work-based STW component, the STW "program" was not available to all students, even accounting for a gradual, sequenced plan of implementation to scale. Consistently, there was an application process involved that required approval by a committee of several staff members, and Centers would only consider students for the STW program who had completed a certain percentage of their TAR, had a clean discipline record, and had referrals from a counselor, instructors and/or administrators. This tended to limit which students could participate. Moreover, in this variant STW was frequently viewed as separate from other operations at the Center. For example, in some cases "STW students" even had separate dormitories—although this did allow some of the logistical issues of scheduling and restrictions on times students could be in the dormitories to be addressed. In other cases, they held "elite" status at the Center ("STW is earned, not a right.").

If the vision of STW is primarily thought of as an enhanced, stand-alone work experience program, this view is not altogether flawed—there is a certain readiness level expected of students before they should be placed in a work-based job training situation. If, on the other hand, the intent is to use STW as a developmental approach to building transferable skills, exposing students to career paths, and preparing young people for continued education and training that will lead to entry into high wage, high demand jobs, limiting access to STW activities denies services to the very students who could benefit the most from an integrated, systems-approach to learning.

---

[2] By this, we mean that quality changes consistent with STW principles and practices are being made across all training and education programs/activities, both on- and off-Center. Therefore, all students are essentially STW "participants."

It is critical to establish a clear, consistent vision from the onset of any initiative. Centers that began implementation without a vision that was widely held by all experienced confusion, resistance and frustration throughout implementation. These feelings will occur during any complex change process, but are exacerbated and extended without a commonly held view of the ultimate goal and the reasons for striving to attain that goal. As difficult as it is to establish a vision at all levels, it is even more difficult to change one once it has been established. Centers would be well served to devote time and other resources to ensure that a vision—one that involves all stakeholders in its development—is crafted at the outset.

In the words of Carol Grosse, an American educator, "I believe you rarely achieve more than you expect." We believe that the vision provides a motivating focus and can contribute to successful implementation of a complex initiative. It does not necessarily ensure that a problem-free implementation process will occur. Other elements necessary for change to occur, such as resources, staff skills, management systems, and incentives, can affect the degree and ease with which implementation occurs. We discuss some of these other factors in the next several chapters.

IV. SCHOOL-TO-WORK SYSTEM BUILDING

In this chapter we turn our attention to the ways in which the Job Corps Model Centers went about building the organizational structure necessary to implement school-to-work reforms. Effective implementation requires a coherent vision of STW, as we discussed in the previous chapter, as well as a strong sense of teamwork and coordination among a broad range of staff. In the Job Corps context, successful implementation of classroom-based, work-based, and connecting activities depends largely upon active participation and support from staff within different departments, such as academics, vocations, administration, counseling, and residential living. Staff from these various departments must work together to design and implement STW activities, although historically these departments have been quite fragmented. Thus, in many respects, implementation of school-to-work principles entails changing some of the ways in which Job Corps has traditionally operated, an issue we explored in Chapter II.

This chapter examines the efforts of the Centers we studied to build these systems of support. First, we explore the ways that Centers worked to garner support for the STW initiative across key stakeholders. Second, we identify the initial design decisions Model Centers made to launch their STW initiative, with respect to major activities and expenditure of the STW grant funds. Finally, we describe the staffing arrangements for the STW initiative that the Centers put into place.

GALVANIZING SUPPORT FOR STW

The Job Corps STW Model Centers were encouraged to conceive of school-to-work as a system that affects all aspects of the Center. As such, the Job Corps' "Characteristics of a Comprehensive STW System," articulated by DOL and presented in Exhibit I-1 of Chapter I, calls upon the Model Centers to ensure that "Center management and *all* staff have a shared vision of school-to-work as a system that maximizes opportunities for students to develop necessary academic, vocational, and social skills and to succeed in better quality jobs." Further, the quality indicators stress that Centers should develop "a plan for institutionalizing STW throughout Center operations," and should recognize that "all staff have roles in STW implementation…."

Job Corps Centers have tremendous resources to draw upon in building a STW system—vocational and academic instruction, social skills training, and extensive counseling services. At the same time, galvanizing support for the STW initiative across all these departments, and ensuring that all staff share a common vision of STW, have been significant challenges for the Model Centers. As we discussed in Chapter III, concerning the vision of STW at the Model Centers, key staff members at many Centers view the STW initiative as primarily a work-based learning program that enhances vocational instruction and placement activities. As a result, the implementation of STW often involves only a small number of staff at the Job Corps Center, with other staff members expressing confidence that "STW doesn't apply to me." Some of the Model Centers, however, recognized that their initial vision of STW was rather narrow, and they subsequently took steps to modify and expand the scope of their STW initiative to include more classroom-based and connecting activities.

In this section, we explore strategies Model Centers adopted to garner support for the STW initiative. Specifically, we discuss the following issues related to system-building:

- Where at the Job Corps Center is the STW initiative housed?
- What types of governance mechanisms exist to provide management and oversight of the STW initiative?
- What internal partnerships support the STW initiative?

Where Is the STW Initiative Housed?

Upon receiving STW funding, one of the first decisions that Model Centers had to make concerned where the STW initiative should be housed within the Center. This was an important decision because it influenced how key stakeholders came to view the STW initiative and how the Center planned its initial implementation steps. For example, operating the STW initiative from the placement department placed an outcome-oriented emphasis on STW activities.

Foreseeing the importance of this decision, most Centers were quite deliberate about it. There were a few exceptions, such as in those few cases where the decision about where the STW initiative should be housed was largely a function of idiosyncratic reasons. For example, at one Center, the manager of vocations had written the STW Concept Paper and was also the most ardent supporter of STW at the Center. Therefore, it was decided that the initiative would operate out of the vocations department. In general, however, the decision about where the STW initiative should be housed reflected the Center's vision of STW and the conception of how STW efforts should be coordinated with key aspects of Center operations.

Given what we learned about the Centers' vision for STW, as described in the preceding chapter, it is perhaps understandable that most of the Model Centers chose to operate the STW initiative from the placement or vocational departments, although placing it within the administration department was also fairly common. More rarely, at one Center the STW initiative was housed within the academic department, or, in a few other cases, operated out of its own department. Below we discuss some of the reasons why Centers chose to locate the STW initiative where they did and some of the implications of these decisions.

- *On-Center Placement Department.* Approximately one-quarter of the Model Centers housed the STW initiative within the placement department. In many cases, the decision to locate the initiative here reflected the Center's conception of STW as primarily providing students with opportunities to gain work-experience pertaining to their trade, as a way of easing their transition out of the JCC. Thus, the STW initiative was often perceived as a vehicle to enhance the Center's placement activities, because it would potentially improve the Center's performance ratings with respect to placement rates and job-training match.

  Voicing another reason for the decision, one Center director indicated that a major objective of placing the STW initiative within the placement department was to reduce duplicate contacts with employers (this Center has a contract to provide placement services). Thus, four STW/placement specialists at this Center are each assigned to specific vocations, and are responsible for approaching employers to provide temporary work-based learning opportunities or full-time placement positions. In addition to meeting the objective of eliminating duplicate contacts with employers, this Model Center also adopted this new staffing arrangement with an eye to sustaining the STW initiative once the DOL grant funding was exhausted.

- *Vocations.* About one-quarter of the Model Centers chose to locate the STW initiative within the vocational department. The decision to locate within vocations often stems from a vision of STW as functioning primarily as a work-based learning (WBL) program, whereby students gain work experience directly related to their vocational training. Indeed, as we describe later in this chapter, the great majority of the Model Centers launched their STW initiative by placing students in work-based learning opportunities with employers or at the Job Corps campus. In these cases, the STW Coordinator (or other STW staff members) often works closely with the vocational instructors to determine which students are considered ready for placement in an off-site WBL slot, and to discuss the specific needs of employers.

- *Administration.* Almost one-third of the Model Centers operated the STW initiative from the administration department. Some Centers chose to locate the STW initiative here because, previously, the work experience or leisure-time employment program was housed in the administration department, and the STW initiative was considered to be a transformation of one of these programs. At many of these Centers, the STW Coordinator reports directly to the Center Director. In some cases this meant that the STW Coordinator had significant authority and autonomy in implementing the STW initiative. Yet in other cases, the STW Coordinator had little flexibility in designing the initiative and received scant support from the Center's leadership.
- *Academic.* Only one of the Model Centers located the STW initiative within the academic department. At this Center, the academic manager had taken a lead role in writing the STW Concept Paper, and had also leveraged additional funding to support the STW effort through a partnership with the local school district. As a result of the academic manager's background in STW, he provides oversight to the initiative and supervises the STW Coordinator. Perhaps because the STW initiative is housed within the academic department, this Center has placed slightly more emphasis on classroom-based learning activities than many of the other Model Centers.
- *STW as its own department.* A couple of Model Centers indicated that the STW initiative was not housed within one of the major departments on the Job Corps Center, but, rather, exists as its own separate department. The STW Coordinators at these Centers reported that they work very closely with the academic, vocational and placement departments to develop work-based, classroom-based, and connecting activities. In general, these Centers enjoy a high degree of support for the STW initiative from senior administrative staff members, as well as from academic and vocational instructors. The STW initiative at these Centers is commonly understood to represent "a new way of doing things," rather than an "add-on program."

As suggested by the above discussion, the decision about where to locate the STW initiative had important implications. For example, it influenced how staff members perceived the new effort. Locating the STW initiative inside the placement department, for instance, sometimes fueled a perception that students participate in STW only as they are preparing to leave the Job Corps Center, instead of something that students experience throughout their tenure. Similarly, operating the STW initiative from within one of the major departments, such as the vocational department, sometimes created a perception that the STW initiative is an effort of that department alone, rather than an initiative that calls for strong support from staff from each of the Center's departments. Perhaps for this reason, Centers that located STW within its own department tended to have a more balanced design that included work-based, classroom-based, and connecting activities.

Structures for Management and Oversight

Another important decision Model Centers had to make concerned which staff members should be involved in the governance of the STW initiative. Since most Centers began their initiative by developing work-based learning (WBL) activities, as we describe later in this chapter, governance of STW often focused on issues pertaining to WBL. For example, the management team or the Center Director often established the criteria that students must meet before they could be placed in an off-Center WBL activity with an employer. However, management and oversight responsibilities extended much further and included designing the major components of the STW initiative, establishing priorities, and making sure that the implementation of activities was consistent with a broad vision of STW.

Model Centers established a few different mechanisms to help guide the STW initiative and provide this management and oversight. Approximately seven of the Model Centers chose to create new management structures for these purposes. Engaging a core group of staff in the governance of STW in this way often helped to ensure that the initiative was conceived of as a coherent system, rather than an "add-on" program that was the responsibility of one person. Often referred to as the "STW Planning Committee," the "STW Steering Committee," or the "STW Advisory Board," such committees are generally composed of the STW Coordinator, vocational manager, academic manager, and a representative from administration. At a few Centers, staff members from the counseling department, and academic and vocational instructors, also participate in these committees and thus play a role in the design and management of the STW initiative. In one Center, the Center director chairs the STW Steering Committee. The Steering Committee meets weekly to discuss issues pertaining to STW. For example, during the time of our initial site visit to this Center, part of the Steering Committee's meeting was devoted to refining procedures to ensure that students alert a Center staff person before they call in sick to an employer providing a WBL slot.

Although establishing a new management structure was the approach adopted by these few Centers, most of the others have chosen to incorporate the management of the STW initiative into the responsibilities of existing management structures. Thus, the Center's senior management team, or in some cases just the Center director or STW Coordinator, provides guidance to the STW initiative and makes key decisions regarding the design of STW efforts. In these cases, substantial authority for STW resided with just one or at most a few key people, limiting the opportunity for more widespread buy-in.

Only one of the Model Centers established a formal mechanism to involve students in the management and oversight of the STW initiative. This Center created a "STW Service Team," composed of staff and student representatives, including about ten students representing each of the vocations and the student government. The STW Service Team meets with the STW Coordinator on a monthly basis to provide feedback regarding the types of job shadowing and internship opportunities students are interested in, and other issues pertaining to STW. Members of the STW Service Team also make announcements about upcoming activities of the STW initiative to their respective vocational classrooms or their dorms.

Internal Partnerships that Support the STW Initiative

Forging strong partnerships among staff from different departments within the Job Corps Center is critical to successful implementation of STW. By involving key stakeholders from different departments, such as the Center Director, academic instructors, vocational instructors, and counselors, the Center is much more likely to institutionalize STW throughout its operations. However, garnering Center-wide support for STW was a significant challenge, because Centers have historically operated in a very modular fashion, with little coordination and communication between the various departments.

The Model Centers varied quite a bit with respect to the depth and nature of internal partnerships supporting school-to-work efforts. By the time of our second site visits, just over one-third of the Model Centers had established formal structures to engage staff members from different departments in the STW initiative. These formal structures include governance and management committees, which were described above, as well as task groups formed to develop certain components of the STW initiative, which are discussed in this section. These task groups provide an opportunity for all staff to get involved in the STW initiative and are usually formed around curriculum development. An example is given below.

> Under the leadership of the STW Coordinator, the Angell Job Corps Center formed "pods," which consist of teams of academic and vocational instructors and representatives from residential living and administration. There are four pods: Culinary and Business and Opticianry; Welding and Masonry; Auto and Painting; and Forestry and Carpentry. Each pod is composed of the relevant vocational instructors, one full-time academic

> instructor, one dorm manager, and one representative from administration. In addition, representatives from the health and counseling departments float between the pods. The pods meet once each week for 45 minutes to develop integrated curricula and discuss ways in which STW can help students. Also, the STW Coordinator makes resources available to the pods, to inform them about what STW is and to provide guidance on how to develop curricula. These pods play a major role in supporting a systemic, ongoing effort to integrate academic and vocational instruction and learning about social skills.

Other Centers have similar arrangements for creating task groups or committees charged with designing and implementing particular components of the STW initiative. In many cases, these task groups focus on classroom-based or connecting activities. For example, by the time of our second site visit, five Centers had created a Curriculum Development Committee to revise the curriculum so that academic and vocational instruction would be much more integrated. Most commonly, the committee is composed of representatives from the administration, academic, and vocational departments, along with the STW Coordinator and possibly a Residential Counselor. Another Center has promoted internal partnerships by creating four "ed-tech" clusters—one business/retail cluster, two construction clusters, and a health occupations training cluster. Each cluster includes vocational instructors, academic instructors, counseling staff, and a placement/STW specialist.

In contrast to the examples described above, which involve staff members from different departments working together to revamp curricula and develop systemic reform, the majority of the Model Centers suffered from weak internal partnerships supporting the STW initiative. Quite commonly, internal partnership revolved at best almost exclusively around decisions about which students were ready for work-based activities. For example, several Centers asked the student's P/PEP panel to determine whether an individual student possesses sufficient vocational, academic, and social competencies to be placed in a WBL activity with a local employer. Similarly, at most Centers the STW Coordinator sought advice or assistance from vocational instructors with recruiting employers to provide WBL opportunities and monitoring student participation in WBL activities.

Several STW Coordinators expressed frustration that they could not forge stronger and more widespread partnerships, and complained that they "could not force staff members from different departments to work together." This frustration was most common at Centers where the STW Coordinator had little authority and the Center's leadership had not been supportive of incorporating STW principles across all aspects of the Center. At one Center, for example, an academic instructor described herself as "a strong proponent of making academic instruction relevant to vocational training." However, she has experienced significant difficulty "getting instructors to buy-in," she said, primarily because "no one in a position of authority is saying, 'this is a priority.'"

As the example described above suggests, the extent to which the Center Director, along with other senior management staff members, are knowledgeable and supportive of the STW initiative was often a critical factor impacting the Center's ability to develop strong support from key stakeholders within the Job Corps Center. Because of their authority and ability to mobilize other staff, Center Directors are especially important to the success of the STW initiative. Thus, when the Center Director embraced a broad vision of STW and supported the initiative, the Center was much more likely to be instituting system-wide reform. For example, the academic manager at one Center indicated that the Center Director "has encouraged me to do whatever it takes to integrate academic and vocational instruction, including hiring substitute teachers to provide instructors with planning periods." Staff members at several Centers emphasized that it would be extremely difficult to implement substantial changes to the Job Corps curriculum—to integrate academic and vocational instruction, for example—without strong support and encouragement from top-level administrative staff.

STARTING THE STW INITIATIVE AT THE MODEL CENTERS

In this section we discuss the design decisions Model Centers made upon receiving their STW funding. We begin by outlining the various ways that Centers chose to use their funds. Next, we describe the first steps that Centers took to launch the STW initiative.

Use of Special STW Funds

DOL's announcement requesting STW Concept Papers stated that "30 Model Centers will be selected…to receive 2-year funding for a full-time STW staff person and, where available, technical support from a national contractor." In keeping with this expectation, virtually all of the Job Corps Model Centers hired a STW Coordinator once they were awarded their STW funds. Generally, the coordinator serves as the Center's key contact for STW efforts and usually takes the lead role in developing and implementing major STW components. (In the next section of this chapter we discuss the staffing arrangements and major responsibilities of STW staff members).

Although a great majority of the Model Centers used most of their STW funds to support the new STW Coordinator staff position, there were a few exceptions. One Center, for example, used a major portion of the first-year STW funds to purchase computers and a variety of software packages. Students in the business occupations trade primarily use these computers, as part of their vocational instruction, but other students at the Job Corps Center can also utilize them. Another Center already had an existing staff member working to develop WBL activities as part of its STW initiative. Thus, the first year's STW funds were used to support a new position, the Curriculum Development Specialist, responsible for developing new curricula to reflect STW principles.

Beyond these major choices about how the STW funds should be used, nearly all Centers reserved a small portion of their funding for a variety of other purposes. Several Centers devoted some of the STW funds to help provide transportation for students participating in off-site WBL activities, generally by hiring drivers or providing transportation vouchers. For Job Corps Centers located in rural areas, as well as other Centers with little or no access to public transportation, securing adequate transportation services was a major challenge. In these cases in particular, transportation expenses consumed a significant portion of the STW budget.

Many of the Model Centers also used some of the STW funds to support staff development activities or purchase resources on STW. Since very few of the STW Coordinators, or other Job Corps staff, had previous background or training on STW, several Centers arranged for on-site STW training sessions, in addition to technical assistance provided as part of DOL's STW Technical Assistance project,[1] or sent key STW staff members to conferences on STW. The STW funds were also used to purchase curricula and other resources to help design and implement classroom-based and connecting activities. At one Center, a small portion of the STW grant funds were used to purchase a computer for the STW office, which students can use to access career exploration programs, job listings, and other resources available through the Internet.

Initial Steps

What were the initial steps taken by the STW Coordinators in designing the Center's STW initiative? The Job Corps's "Characteristics of a Comprehensive STW

---

[1] Technical assistance was provided to all 30 Model Centers through the KRA Corporation as part of DOL's Model Center Technical Assistance Project.

System" (see Exhibit I-1 in Chapter I) emphasizes that Center management and all staff must "understand that STW is a 'framework for learning' that … is composed of school-based learning *and* work-based learning *and* connecting activities." However, it is not always easy or feasible to design and implement all of these components at once. Thus, Centers needed to decide how to focus their initial STW efforts. Although the different types of classroom-based, work-based, and connecting activities are explored in further detail in the subsequent three chapters of this Report, here we briefly describe the first things that Model Centers did after receiving the special STW funding.

- *Recruit employers to provide work-based learning opportunities.* In keeping with their vision of STW as a work-based learning program, virtually all of the Model Centers launched their STW initiative with a strong focus on providing work-based learning activities.[2] Thus, by far the most common first step was to develop stronger linkages with local employers to provide students with WBL opportunities related to their trade. A few Centers have encouraged employers to provide a range of different WBL activities, such as field trips, job shadowing opportunities and internships. At many of the Model Centers, STW was widely interpreted as a work-based learning program, whereby students participate in an internship with a local employer to enhance their vocational instruction. Since many Centers previously had a Work Experience Program (WEP), or a Leisure-time Employment Program (LEP), recruiting employers to provide work-experience opportunities for students represented "familiar territory."

- *Modify the existing academic and vocational curriculum.* Although far less common than recruiting employers to provide WBL slots, some of the Model Centers also took formal steps to integrate academic and vocational instruction. Staff from one of the Model Centers stated that they explicitly "tried to avoid the trap of equating STW with WEP." Drawing upon lessons learned from the experiences of one of the original three STW pilot Job Corps Centers,[3] this Model Center carefully designed its STW initiative to include work-based, classroom-based, and connecting activities.

  These Centers adopted different strategies to integrate academic and vocational instruction. Some Centers established committees or working groups to develop a more integrated curriculum, as described above in the section on internal partnerships. One Center created a separate Applied Academics class, held daily during the 7th period of academic instruction. Some Centers have developed new classes to link academic and vocational instruction, such as a special math class for students in the electrical trade. A couple of Centers arranged to have an academic instructor serve as a "traveling applied academics instructor," visiting certain vocational classrooms on an itinerant basis to facilitate applied academics exercises.

---

[2] Chapter III suggests that about 15% of the Centers shared a vision among staff that equated STW with work-based learning (variation #2). However, Centers in variations #3 and #4 also heavily focused on work-based learning, as that was the element of reform that staff could relate to most readily.

[3] The National Office of Job Corps funded three STW pilot Centers—the Penobscot JCC in Bangor, Maine, the New Orleans JCC, and the Springdale JCC in Troutdale, Oregon.

- *Develop linkages with community partners.* Several of the Model Centers have forged linkages with a variety of community partners, in addition to local employers. As part of the STW initiative, a few of the Model Centers have developed partnerships with the local school-to-work system. For example, one Center has leveraged additional funding for its STW initiative through collaboration with the local school district. Together, this partnership applied for and received two grants from the state's Department of Education to support staff development and implementation of STW. Also, in response to provisions of the Workforce Investment Act, some of the Model Centers have established linkages with nearby One-Stop Career Centers to help students learn about the career planning and job search resources available at the One-Stop Center.

At some of the Model Centers, staff members made decisions about initial implementation steps because of, or in spite of, their fears that implementing certain components of STW would negatively impact the Center's performance targets. For example, the Center Director of one of the Model Centers was concerned that integrating academic and vocational instruction would decrease the amount of time devoted to the standard academic curriculum, which might reduce gains in TABE and GED preparation test scores. For this reason, the Center did not pursue efforts to integrate academic and vocational instruction. While recent changes to the Job Corps's performance measurement system have resulted in a greater emphasis on placement measures and less on academic skill gains, during our second round of site visits respondents at several Centers continued to express concern that implementing innovative classroom-based activities might detract from the students' ability to prepare for and pass the GED examination in a timely fashion. Other Centers have had to overcome fears that implementing work-based learning activities would have negative implications. For example, staff often feared that students would get "snatched away" by employers prior to completing their academic and vocational coursework. In a few cases, these fears were realized, and as a result, employers were given a more detailed orientation to Job Corps and then agreed not to try to hire current Job Corps students prematurely.

Another initial step that some Centers took to launch their initiative was to request waivers from DOL of one or more prescribed Job Corps policies or procedures. In its School-to-Work Implementation Plan, the National Office explicitly noted that Model Centers may request waivers for modifications of certain required training delivery methods and competencies, if doing so would facilitate their implementation of STW. In fact, only a handful of Centers requested waivers of any sort, and these were generally quite narrowly focused. For example, several Centers requested waivers to allow students working off-site in night jobs to sleep in beyond the normal wake-up time the next morning. Another Center requested a waiver to modify a staff member's job duties. By contrast, quite a few Centers noted that the newly revised Policy and Requirements Handbook (PRH) gave them ample flexibility, so that waivers that they might otherwise have requested were now no longer necessary.[4] More generally, the revised PRH was roundly praised for allowing Centers wide latitude to pursue innovative teaching methods.

STAFFING ARRANGEMENTS FOR THE STW INITIATIVE

As we described in the previous section, virtually all of the Model Centers created a new staff position, the STW Coordinator, who would serve as the lead staff person for the STW initiative. In general, each Model Center has one staff person charged with developing, implementing, and coordinating the STW initiative. By the time of our second site visits, 24 of the 30 Model Centers continued to have a single staff person serve as the STW Coordinator. At a few Centers, however, multiple staff members have had key responsibilities for STW efforts at various points during the development of the STW initiative. For example, one Center began its STW initiative with a STW Coordinator, working to expand WBL opportunities for students, as well as a Curriculum Development Specialist, responsible for modifying the Job Corps curriculum to integrate academic and vocational instruction. Another Model Center decided that, in lieu of having one staff person devoted to STW, which was the original arrangement at the Center, responsibilities for developing the STW initiative would be shared among four placement specialists working in the Center's placement department. Thus, each placement specialist works with certain vocations to place students in temporary WBL activities or permanent employment or advanced training. Also, a few of the Model Centers have recently established or plan to establish "ed-tech" clusters, which combine academic and vocational instructors, as well as a counselor and placement specialist. These Centers indicated that the placement specialists assigned to each cluster would most likely assume responsibility for coordinating the WBL portion of the STW initiative, rather than the STW Coordinator. At some of the Model Centers, modifications to the original staffing arrangements for the STW initiative, such as having placement specialists or vocational instructors assume responsibility for coordinating the WBL component, were made in order to help sustain the STW initiative, an issue we discuss in Chapter VIII of this report.

---

[4] The PRH lays out policies and practices required of Job Corps Centers by the National Office. Although it served a needed and valuable function, the first edition of the PRH was found by many users to be overly prescriptive, limiting the freedom of Centers to innovate with respect to processes or methods. A revised PRH was issued shortly after the Model Centers began operation. This new version focuses much more than its predecessor on specifying expected outcomes rather than methods and processes.

In most cases, the STW Coordinator or other STW staff members had little or no prior training or experience with STW. Several STW Coordinators have previously worked at the Job Corps Center, however, most commonly in the placement department or as the coordinator of the Work Experience Program. For this reason, STW Coordinators often had prior experience working with employers. Also, at about five Centers, the STW Coordinator only works part-time on the school-to-work initiative, while the remaining time may be spent providing placement services, or coordinating post-secondary and advanced training opportunities for students.

Because the vast majority of the Model Centers launched their STW initiative by greatly expanding WBL opportunities for students, major responsibilities of STW Coordinators have been focused in this area. Most commonly, STW Coordinators spend the bulk of their time recruiting employers to provide WBL opportunities for students, including field trips, job shadowing, and paid or unpaid internships. Typically, the STW Coordinator works with vocational instructors to match students to an appropriate employer for a WBL activity, and then monitors the students' participation in WBL. At a few Centers, the STW Coordinator is also responsible for transporting students to WBL sites, although most Centers have hired drivers or provide students with transportation vouchers.

At a few of the Model Centers, the STW Coordinator also works to promote classroom-based and connecting activities. For example, one Center described earlier in this chapter has formed teams of academic, vocational, administrative, and residential staff that are called "pods." The STW Coordinator works with each "pod," and also with individual teachers, to help develop applied academics exercises and other new curricula.

At another Center, the STW Coordinator described one of his major responsibilities as educating Job Corps staff and employers that STW entails much more than placing students in WBL—it also involves integrating academic and vocational instruction and learning about social skills. According to this STW Coordinator, the Center is "doing some of that integration already, but only some of us see that as STW." In general, however, to the extent that Centers are developing classroom-based or connecting activities as part of their STW initiative, responsibility for these efforts is usually placed with academic or vocational staff, while the STW Coordinator focuses on coordinating WBL activities.

STW Coordinators varied quite a bit with respect to their degree of autonomy and authority at the Job Corps Center. At a few Centers, the STW Coordinator is part of the senior management team, working closely with the Center director and academic and vocational managers to infuse STW principles throughout all departments of the JCC. Moreover, this group of STW Coordinators has often brokered strong partnerships with community entities, including community colleges, the school district, and One-Stop Career Centers. Yet by far a more common pattern was for STW Coordinators to work in relative isolation, focusing primarily on recruiting employers to provide WBL opportunities and monitoring student participation in WBL activities. In these cases, they typically have little authority and flexibility, as well as minimal support from senior management staff, making it extremely difficult to institutionalize STW throughout Center operations.

Staff turnover was another challenge that several of the Model Centers faced during the first two years of STW implementation. Half of the Model Centers experienced turnover in the staff member responsible for the STW initiative. At these Centers, the original STW Coordinator either resigned from the JCC or was moved to a different position within the Center. Sometimes the turnover in STW staff resulted from a change in the Center operator. Changes in the staffing arrangement of the STW initiative often delayed implementation efforts, since new staff members generally required training in STW. This rather high degree of staff turnover at the Model Centers highlights a disadvantage of focusing the use of STW funds to hire and train one person.

CONCLUSION

As we have discussed in this chapter, the Model Centers made important initial progress in launching their STW initiative. Thus, most Centers moved quickly to hire a STW Coordinator, initiate staff training, procure equipment and training materials, form

STW management structures, begin introducing applied academics curricula, and establish WBL training opportunities.

We also learned that, within this range of activities, the focus of initial implementation steps adopted by JC Centers could be quite important. These first steps helped set the tone for the initiative, fueling a perception among staff around what the STW initiative really entails. Thus, some Centers began with a clear vision of STW as an integrated system and took initial implementation steps consistent with this vision. At these Centers, strong internal partnerships were emerging. In contrast to these examples, most Centers began implementation efforts by focusing heavily on WBL activities, regardless of their vision of STW. In general, it seems, they began with what was most familiar, by revitalizing existing work experience programs to enhance the connections between a student's vocational training and WBL activities. However, in many such cases, the strong initial emphasis on WBL led to misperceptions around the initiative, causing staff to believe that "STW is just a new name for the old Work Experience Program." Recognizing the pitfalls of this approach, one STW Coordinator indicated that, "if we had to do it over again, we would not start with WBL," because staff become attached to the notion that STW is equivalent to work-based training.

V. SCHOOL-BASED LEARNING

School-based learning (SBL) is a component of school-to-work that Job Corps had in place at the start of the demonstration effort and is the one with which Centers have had the most experience. As the cornerstone to Job Corps's training for many years, classroom training, by dint of its well-entrenched position and traditions, was a challenge to adapt to accommodate new teaching practices conducive to a STW agenda.

This chapter discusses how classroom-based training evolved over two years of effort by 30 Centers to develop a STW system. In particular, it examines how STW affected the structure and content of classroom training and to what extent Centers were successful in integrating classroom training to replicate STW best practice methods, such as teaching in context and using active learning.

We begin this chapter with a discussion of changes in the structure of classroom learning at the Job Corps Centers we visited. The structure of learning includes such topics as making classroom periods longer, adding new class periods, clustering academic and vocational instructors, and making changes designed to foster improved social and employability skills for Job Corps youth. Second, we discuss changes in the content of learning that occurred during the STW implementation period, including changes to the skills that students were expected to learn. Third, we discuss innovations with respect to teaching methods, including the use of active or experiential teaching methods, project-based learning, and team teaching. Finally, the chapter concludes with a discussion of the challenges faced by the Model Centers as they endeavored to implement SBL activities consistent with STW principles.

THE STRUCTURE OF LEARNING

Traditionally, Job Corps Centers have used various combinations of academic and vocational classes to prepare youth for jobs.[1] Upon enrolling in Job Corps, a new student generally alternates between attending academic and vocational classes, with some Centers using split-day, alternating day, or alternating week designs. As a supplement to their academic and vocational courses, Job Corps students also attend classes designed to promote social skills, independent living skills and general employability skills. Classes such as Social Skills Training (SST), World of Work, Workplace Communications, and driver's education help students develop these types of skills.

---

[1] Academic will generally be used to refer to both remedial (basic) education and GED classes.

The advent of STW caused this structure to change. First, for students who were placed in work-based learning (WBL) at off-Center locations, the sequence of activities would need to alter. Thus, students might interrupt their classroom-based learning for an interlude of a few weeks or longer, during which they were working off-Center full-time. Or, for those working at part-time WBL assignments, they might attend classes a half day and go to their worksites for the rest of the day. In most cases, STW Coordinators and instructional staff needed to individualize the student's schedule, based on how far along the students were in their vocational and academic training plan and their work schedules.

Beyond this, some of the Model Centers modified the structure of learning in the classroom. These changes took several different forms, including efforts to change the structure of academic instruction or to modify the delivery of vocational and academic instruction by creating small groups or "clusters" of academic and vocational instructors.

Changes to the Structure of Academic Classes

The Job Corps's "Characteristics of a Comprehensive STW System," described in Exhibit I-1 of Chapter I, emphasizes that school-based learning should emphasize the integration of academic and vocational competencies, move towards active learning methods, and utilize applied academics to provide a context for learning. These efforts are made difficult in academic classes they way they are structured in most Job Corps Centers, because students in any given class will likely represent different ability levels and be drawn from different trades. About one-fourth of the Model Centers made changes to the structure of academic instruction as a strategy to overcome these barriers.

One approach, adopted by the Denison and Angell Job Corps Centers, was to institute a new class period that would be devoted to applied academics. For example, at the Angell Center, an applied academics class has been added as a separate class period, which students attend daily during the weeks that they are in academics (at Angell, typically students rotate from one week to the next between academics and vocations). This class is taught by academic instructors, using a curriculum designed by the Center's "pods"—groups of academic, vocational, administrative and counseling staff at the Center who work together to create integrated curricular materials. An advantage of this arrangement is that students attend the applied academics class that pertains specifically to their trade, so the contextual materials can be especially relevant for them. At both

Angell and Denison, however, staff members expressed a desire for further staff training and resources to help guide the curriculum development efforts that are necessary to successfully support these new applied academics classes.

Another structural modification made to academic classes that some Centers adopted was to move to "block scheduling" in order to help create greater opportunities for group activities and project-based learning. Prior to the STW initiative, GED and basic education classes were generally taught in these Centers in hourly class periods. These class periods were lengthened—generally to two-hour blocks—to make it easier for instructors to use more interactive teaching methods and to go deeper into their subjects.

A third modification was to group students according to subject matter or ability level. Of course, most Job Corps Centers have always used groupings of some sort as a way of teaching students more effectively. The split between those attending GED vs. basic education classes is the clearest example, but groupings by subject matter are also common, especially in larger Centers. But some Centers moved to adopt more homogeneous groupings for teaching students in academic classes, specifically with STW in mind. For example, at the Connecticut Job Corps Center, a new academic system was instituted shortly before our second site visit that organizes students according to ability-level and subject matter. In this way, instructors are only asked to teach students at a particular level in a particular subject area at any one time. The hope is that this will encourage more applied academics and project-based learning and make planning lessons easier for instructors. Previously, by contrast, an instructor might have had students in a single class at varying levels and was expected to cover multiple subject areas. Invariably this led to a heavy emphasis on individualized workbook exercises and computer drill and practice.

Removing Barriers to the Integration of Academic and Vocational Instruction

A handful of the Model Centers undertook structural changes during our two-year study period to improve the integration of academic and vocational instruction, by breaking down the barriers between these two departments. In some of the cases, these changes represent major transformations of the Center structure and could be important initial step toward developing classroom activities that are consistent with STW principles.

One of these changes is represented by the "ed-tech" model, which one Center, Woodstock, was just beginning to implement. Although the reorganization had not been finalized at the time of our second site visit, the plan was to assign vocational, educational, placement, and counseling staff to one of four ed-tech team; each team would be located in its own building. At least two other Model Centers are considering instituting a similar structure.

The advantage of such an approach, according to the Center Director at Woodstock, is that all staff within an ed-tech team would have knowledge of the specific group of trades and of the employers' requirements within those groups. Another major advantage would be that the tech-Center approach would cluster STW, academic, vocational, and counseling staff within the same physical space and make it logistically easier to connect activities. In conjunction with this structural change, Woodstock is also moving to replace the self-paced CMI system with a more teacher-directed curriculum.

A related approach to facilitating the interchange between academic and vocational instructors by altering the physical space was witnessed at the Cassadaga Job Corps Center. With support from their DOL regional office, this Center has created a new "applied academics building," which situates an academic classroom adjacent to two vocational areas. Each academic instructor teaches all academic subjects to the youth in the trade to which the instructor is assigned. Academic and vocational instructors work in close proximity to one another and, thus far, have engaged in informal efforts to integrate academic and vocational instruction. Ultimately, these staff teams will be responsible for developing "thematic integrated units," which would function as an integrated curriculum.

Clustering staff into pods is a related way of engaging staff members in the STW initiative and facilitating the integration of academic and vocational learning. Angell's pods, mentioned earlier in this section, consist of teams of academic and vocational instructors, and representatives from residential living and administration. There are four pods: Culinary and Business and Opticianry; Welding and Masonry; Auto and Painting; and Forestry and Carpentry. Each pod is composed of the relevant vocational instructors, one full-time academic instructor, one dorm manager, and one representative from administration. These pods meet once each week for 45 minutes to develop integrated curriculum and discuss ways in which STW can help students.

Overall, then, about one-third of the Model Centers instituted changes to the structure of classroom learning, as a result of the STW initiative. Most of these changes, especially the major ones, were implemented late in our study, and as a result, we were not able to adequately evaluate their impact. On the face of it, however, one advantage of these structures—particularly efforts to group academic and vocational instructors into "pods" or clusters—is that they provide a mechanism for engaging a broader group of staff members in the STW initiative. At several of the Model Centers, respondents told us that academic instructors, in particular, "do not see a role for themselves in STW." This was particularly true for those Centers where STW is closely associated with WBL activities, which typically engage vocational and placement staff. These structural changes thus represent an initial step towards overcoming these misperceptions, involving all staff in the STW initiative, and breaking down barriers between academic and vocational learning. These Centers anticipate that subsequent steps will entail adopting a more integrated curriculum and using a range of different teaching methods.

Such developments are by no means guaranteed, however. For example, one Center we studied used what it called a "resource Center" model, in which academic instructors were assigned to a trade and identified themselves with trade specializations. . Unfortunately, however, by the time of the wave-two visit, this Center saw a decline in its performance, due largely to factors unrelated to this structural feature (including a high degree of turnover among management staff, lax leadership, etc.). As a result, it adopted a "return to basics." Thus, instead of further developing strategies to integrate the structure of academic and vocational instruction, the Center had turned to an enhanced emphasis on the CMI academic system. These example makes the point that modifications to the structure of learning must be accompanied by additional facets of change—staff development, access to appropriate teaching materials, etc—in order for them to realize their potential.

THE CONTENT OF LEARNING

At the time that the STW initiative was launched, the content of classroom-based instruction was very similar across the 30 Job Corps Model Centers included in our sample. Academic instruction, as we have mentioned, is composed of basic skills classes and GED classes, with students placed in one or the other based on their TABE scores. The content of instruction consists of reading, math, and writing/thinking, for those in basic skills courses, and the usual GED subject areas, of writing, social studies, science, language arts, and math, for those working to attain their GED. In some cases, the academic content is broadened for some students, as in Centers that have established partnerships with their local school district that allow Job Corps students to achieve their high school diploma during their stay at Job Corps.

With respect to vocational instruction, training offerings were usually fairly extensive with most Centers providing a similar range of health-related, business and clerical, construction, automotive, and facility maintenance trades. Academic and vocational classroom instruction is supplemented by a variety of other classes emphasizing social skills and employability skills, as we discussed earlier in this chapter, such as SST, World of Work, and driver's education. Some of these courses of study were delivered through a curriculum provided by DOL, while in other cases, the curriculum was purchased from a private vendor.

Over the course of our two-year study period, we observed two broad types of changes that Model Centers have made to the content of classroom learning (i.e., to the skills that are being taught) as a result of the STW initiative and other related Job Corps initiatives. First, several Centers have placed a much greater emphasis on helping students achieve strong general employability skills. These Centers adopted a variety of different strategies in order to accomplish this, such as designing new classes or moving SST classes out of the dorms and into academic and vocational classrooms. The second major change we observed with respect to the content of classroom learning is that some Centers have modified vocational instruction in response to feedback from employers or as a result of student participation in WBL activities.

Increased Emphasis on Employability Skills

By the time of our wave-two site visits, most of the Model Centers had modified the content of classroom learning on Center in order to emphasize employability skills. This was due, in part, to direction from the National Office of Job Corps that Centers should begin to certify students who are deemed to possess sufficient general employability skills. Also, many Job Corps staff members with whom we spoke identified this as a critical area. As one academic manager told us, "when students do not succeed after leaving Job Corps, it's usually because they don't have the 'soft skills' they need to keep a job."

The Model Centers adopted the following strategies as a means of providing students with more opportunities to develop employability skills:

- Changing social skills training and involving a broader group of staff in its instruction.
- Modifying or supplementing other classroom-based learning to place a much greater emphasis on general employability skills, through new classes or new activities.
- Modifying vocational instruction to increase the emphasis on general employability skills.

These changes are described below.

Changes to SST. Several Centers modified the delivery of SST to involve a much broader group of staff members in SST instruction. At some of these Centers, SST instruction has moved out of the residential learning program, and academic and vocational instructors now actively participate as social skills teachers. By moving SST "out of the dorms," and incorporating the SST modules into vocational and academic classes, Centers hope to encourage students to appreciate the ways in which social skills represent a critical aspect of work readiness, along with academic and vocational training. Thus, at the Tongue Point Job Corps Center, SST is taught in the vocational classes, rather than as a separate subject, to encourage students to recognize the relevance of SST to their trade. Some Centers, such as the Woodstock and Excelsior Springs Job Corps Centers, engage a wide variety of different staff members in teaching SST, including administrative and facilities staff members. At Excelsior Springs, for example, instructors and administrative staff meet with small groups of students in "focus groups" that convene in the dormitories to discuss social skills issues.

For the most part, staff members at the Model Centers were supportive of the increased emphasis on SST, the revised SST curriculum,[2] and the efforts to engage a broader group of Job Corps staff members in teaching or reinforcing the lessons embedded in SST. For example, one of the top administrators at Excelsior Springs believes their SST focus groups have had a positive impact on the Center, because "it gets staff out to different parts of the Center, and improves communication among staff from different departments." As a result of site visitors' observations of SST and conversations with staff during site visits elsewhere, however, it was evident that in some cases instructors or staff teaching SST were not entirely comfortable in that role. At one Center, the deputy Center director felt that that SST "works pretty well" overall, but he also added that some instructors "don't feel comfortable [teaching SST] and they do it because they have to."

---

[2] The National Office issued a revised SST curriculum shortly before our study began. This was just being adopted at the time our site visits commenced.

Adding New Classes. Almost one-third of the Model Centers developed new classes or other activities designed to help students develop general employability skills. For example, some Centers revised the "World of Work" class to create a new class or set of classes focusing on "workplace communications." These changes are due in part to the increased flexibility Centers have been granted under the new PRH. In revamping this aspect of the Job Corps curriculum, many Centers strove to create a more engaging, interactive experience for students.

Two additional examples of new classes emphasizing employability skills are discussed below, each of which shows how work-based learning is being used to support social skills development.

> This Model Center has designed a new Professional Development class, taught in three phases, which addresses basic workplace competencies. Employability skills are emphasized during orientation and the Occupational Exploration Program, as phase one of this class. It is stressed to students that everything they do in Job Corps, including academic coursework, is related to employability. Phase two usually occurs once a student has been at the Center for 90 to 105 days. During this phase, students participate in a WBL activity—either an on-Center WBL or a job shadowing activity with an employer or with a staff person at the Center. As a classroom component of phase two, students update their resume, conduct mock interviews, and participate in exercises focused on communication skills, wellness, and handling conflict in the workplace. Finally, phase three of the Professional Development Course is associated with exit from Job Corps and is highly individualized. Students again update their resume, to include job shadowing and other WBL activities, and they are provided with placement assistance, which includes learning how to use the internet for job search activities.
>
> Another Model Center has established a "Pre-STW Training" class, designed for students who are about to begin their work-based learning internship with a local employer. The one-week class is taught by the STW Coordinator and meets for 90 minutes each day of the week. Initially, students are congratulated on gaining admission to this 'pre-STW' orientation. The STW Coordinator reviews the attendance policy for the WBL internship and stresses the importance of a strong work ethic. Students learn that, although the WBL internship is unpaid, they must 'reimburse' the Job Corps Center if they are fired from their internship. Students learn about general workplace competencies, such as communication skills, punctuality, appropriate dress and hygiene. For example, a session on interviewing skills includes watching a video and a class discussion.

A few of the Model Centers have developed additional activities—outside of the classroom—designed to emphasize employability skills or independent living skills. For example, the Trapper Creek Job Corps Center has created a transitional living program, designed to help students develop stronger independent living skills. As part of this program, students nearing graduation are eligible to live in a simulated apartment dwelling. Each of the four units, which houses four students, has two bedrooms, a kitchen and living area. Students living in these houses are paid for their on-Center work at the average entry wage for their trade. They use their earnings credits to purchase food from the Job Corps kitchen and pay bills (water, trash, electric, etc.). In addition, students in Business Education maintain accounting records for students in the transitional living program.

Modifying Vocational Instruction to Emphasize Employability Skills. Finally, another strategy utilized by the Model Centers to emphasize employability skills was to modify or restructure the vocational classroom so that it more closely resembled a workplace. Although vocational TARs include competencies related to general employability skills, some vocational instructors have taken this a step further by operating their vocational classroom as a "workplace" of sorts. For example, at the Collbran Job Corps Center, a Business Technology instructor operates her classroom as "Rise and Shine Temporary Services," which is occasionally called upon to provide administrative support to the Center and is responsible for publishing the Center's newsletter. Similarly, students at the Kittrell Job Corps Center were involved in planning and designing renovations that transformed the retail sales "classroom" to resemble a store. As another example, the optical vocational area at the Loring Job Corps Center is organized as a simulated business, whereby students fill prescriptions and make glasses for students and staff. There is an office manager, and the training area is designed to resemble an optical retail outlet.

Changes in the Content of Vocational Curricula

The STW initiative has also had an influence on the content of vocational training at some of the Model Centers. As a result of increased contact with local employers—those providing WBL opportunities or participating in the Center's Industry Council—vocational instructors at approximately one-third of the Model Centers have made some adjustments to the vocational curriculum. These changes range from the more informal, such as incorporating lessons from WBL activities into the vocational classes, to designing customized vocational training for specific employers.

For example, vocational instructors have adjusted the content of their training based on students' experiences at off-Center worksites as part of their work-based learning. Instructors learn of these experiences either through talking with the student or the STW Coordinator, or through personal visits to the worksite during which the instructor observes and communicates directly with the worksite supervisor (unfortunately, the latter does not appear to occur very often). This feedback helps the instructor assess the extent to which the Center's equipment or TAR is outdated or when specific TAR topics need to be emphasized or modified. At least six of the Centers showed some adjustment of their vocational content in response to feedback from employers or work-based learning (WBL) students. For example, one Center revised its curriculum to teach computer skills related to hotel registration. Another followed the suggestion of an employer to teach a new software application to word processing students, who then developed portfolios that demonstrated their skills with the new application.

A few of the Model Centers adapted or expanded vocational coursework in order to provide customized training for specific employers. At the Edison Job Corps Center, for example, AAMCO Transmissions has established a training center on-site that trains students to become an entry-level installer in any one of over 700 AAMCO locations in the United States. In addition, AT&T has established a laboratory at the Edison Center, to train students to build and repair personal computers.

THE METHODS FOR LEARNING

Traditionally, most academic classroom-based learning at Job Corps has relied on self-paced, individualized modules, which have been used to accommodate a wide range of skill levels and abilities among students. Shortly after arriving at Job Corps, students are tested for basic education skills in math and English. Based on these results, teachers organize instruction using workbooks or computer applications, allowing students to work at their own pace on individual assignments. Although academic teaching styles vary greatly among Centers and among different teachers within Centers, typically teachers will walk around the classroom, asking students how they are doing with their problems and helping students when necessary. Occasionally, teachers will draw all students' attention to particular problems, which the teacher will explain to the class as a whole.

In contrast to academic education's traditionally individualized and self-paced instructional style, vocational learning more typically occurs in groups. Lectures are rare in vocational classes. Rather, the emphasis is on hands-on practice, with the teacher acting as a coach. Peer learning is also relatively common in vocational classes, as experienced students are often assigned to assist newer students. Thus, typically the emphasis in vocational classes is on practice under the supervision of an instructor, with students helping each other in small groups.

In some respects, therefore, the traditional approach in Job Corps to vocational education more closely conforms to STW goals of promoting active learning than does traditional academic education. For this reason, the challenges in promoting teaching methods consistent with STW were somewhat greater in the realm of academic instruction than in vocational instruction. Nonetheless, even in vocational classes instructors found it difficult to use materials that integrated the learning of an array of academic, SCANS, employability, and vocational skills.

In the sections that follow we address some of the ways in which Centers and individual instructors sought to modify instructional methods to move towards active teaching methods and contextual learning. Specifically, we examine the introduction and use of new teaching styles and new instructional materials.

Adopting New Teaching Styles

One criterion for high-quality instruction in a STW context is that students should be actively involved with the material that they are learning. Research suggests that when individuals are active in practicing a new skill or thinking about new information, they acquire the new skill or knowledge more readily than when they are just passively listening or responding in a rote fashion. Ideally, effective instruction also actively involves participants in defining the problems to be addressed, devising potential strategies to solve those problems, applying skills in carrying out those strategies, and evaluating the effectiveness of their chosen strategies.

Recognizing this potential, the National Office has issued guidance suggesting the need for Centers to incorporate active learning by encouraging teachers to "get out from behind their desks" to engage students in the learning process. In following this guidance, the major challenge that instructors face—particularly academic instructors—is to do so without sacrificing the individualization of instruction that has been one of Job Corps's greatest strengths. In other words, the very real advantage of the traditional self-paced workbook approach to academic learning has been its ability to individualize instruction to each student's needs; active learning methods and the associated shift to "whole-class" instruction make this individualization much more difficult.

Academic instructors with whom we spoke were quick to point out this difficulty. They noted that students in the classes they taught often represented a wide range of academic abilities and weaknesses. For example, not all students in the same class would be working on the same skill set or even necessarily on the same subject matter. Moreover, students in a given academic class will likely be drawn from a variety of trades, as diverse as Culinary Arts, Business/Clerical, Retail Trade, and the various construction trades. This diversity is exacerbated by Job Corps's open-entry/open-exit approach to learning, which also represents one of its hallmarks; thus, some students in a given class will be near completion, while others will be just beginning. Given this diversity, developing new instructional strategies that can speak to the whole class and that address each student's unique learning needs is difficult, to say the least.

Some instructors nonetheless recognized the value in active learning methods and were therefore eager to embrace the challenge; others were more wary. The following example illustrates this diversity of opinion at one Center.

> This Center's recent decision to shift from a reliance on self-paced workbook activities to active teaching methods has prompted some controversy, although a number of staff members supported the changes. The Academic Manager, for example, was happy about the move away from the self-paced, workbook oriented teaching method and likes the fact that DOL gave Centers the alternative to move away from the computerized CMI system that they were using. However, at the same time, she believes that there are elements of the computerized system that are good. For example, she finds the diagnostics capabilities of the CMI system particularly useful. Moreover, she believes that the current system gives needed structure to the curriculum and helps individualize learning.
>
> The academic instructors that work in her department are of mixed views concerning the challenge that lies ahead. In general, those teachers who have been at the Center for the longest period are comfortable with the existing curriculum and do not want to change. In contrast, many of the newer teachers are happy with the proposed changes. Because the Center is required to use state-certified instructors, many of the newer teachers were dissatisfied with the "canned curriculum. Some teachers at this Center believed that the existing curriculum did not allow them to do the job that they were trained to do, namely teach.

Even though many instructors were emboldened by the challenge, changes in academic teaching methods towards more active learning styles were no more than sporadic or incidental in any Center we visited. Thus, in no Center that we visited were academic teaching methods transformed to any appreciable degree; most students in most of their academic classes continued to use workbooks or computer-based instructional methods to drill on the skills in which they were shown to be deficient.

Nonetheless, some new teaching styles and tools did emerge. These included the use of interactive classroom methods, project-based learning, service-learning, and computer-aided instruction.

Interactive Classroom Methods. In contrast to having students work solitarily on workbook or computer-aided exercises, the interactive methods that were used in some academic classes represented attempts to engage students in the active participation of learning. These included group discussions, as when instructors would pose problems or issues before the class as a way of spurring dialogue. Where these occurred, the topics generally revolved around life skills or employability skills, and sometimes were prompted by problems that arose at a student's worksite. Peer teaching or group learning also arose in some cases. Of course, these techniques have always been common in vocational classrooms, but, with the STW initiative, they began to surface more frequently in academic classes as well. Thus, in one academic class we observed, students were assigned to a group of four and each group was charged with developing solutions to a set of applied academics exercises that drew heavily on math skills. Students in each group were free to talk among themselves to work out the answers. After a short while, the groups were to report out their results and present them before the instructor and the other groups.

Team teaching represented another variant of interactive classroom methods that we witnessed at many of the sites. This generally occurred when academic instructors visited the vocational class to teach academics in the context of a particular vocation. Sometimes this occurred on a regular schedule, as in two Centers that established this arrangement for one class period in each vocational trade each week. In other cases, it occurred when a vocational instructor would specifically request it—for example, when a particular math skill that some students lacked needed to be mastered before a vocational class project could be completed.

In one good example of team teaching, a reading instructor collaborated with the retail trades/accounting instructor to teach a course that combined learning objectives from both classes organized around six lessons. In one lesson, for example, students learned how to process catalogue orders. Students were able to see how any errors they made translated into costs to the employer and, as a result, better understood the value of their academic courses.

In general, team teaching was more likely to be sustained when it was part of an administrative decision to integrate academics with vocational training. By contrast, teams were unstable if they were formed on an ad hoc basis, as when two teachers volunteered to address particular needs in a vocational class. Because the individual teachers' efforts were not a part of a Center-wide policy, these collaborations were easily disrupted, as when one of the members of the pair left the Center because of staff turnover or became redirected to other tasks.

Moreover, team teaching did not always accomplish true integration of academics and vocational or social skills. There were several examples where the math instructors simply came to the vocational classrooms to teach math skills called for in the TAR, but otherwise taught them in the same manner that they would have in the academic classroom—that is to say, in a largely decontextualized manner and using worksheets or other drill-and-practice methods. More generally, as we will discuss shortly, the materials developed for these jointly taught (or jointly developed) applied academic exercises were of uneven quality.

Project-Based Learning. A central assumption of project-based learning (PBL) is that, by planning and completing one or more complex, finite, real-world projects, young people are offered multiple opportunities to regularly use, practice, master, and verbalize an array of important and integrated skills—academic, vocational, and work-place. In project-based learning, participants conduct research and exercise critical thinking and problem-solving skills as they implement their project. In the best examples, supervisors and instructors should shift away from the traditional role of telling participants what to do and how. Instead, they should let participants take on many of the responsibilities traditionally reserved for the adult overseer. Thus, youth engaged in project-based learning are typically called upon to take a greater level of responsibility for their own learning than would normally be the case in a more traditional learning environment.

Vocational Skills Training (VST) projects can be an instance of project-based learning, but these will be discussed in the subsequent chapter, because they can be readily construed as on-Center WBL. Beyond this, classroom instructors, both vocational and academic, developed other instances of project-based learning for their students as well. A few examples are described below.

> In the Angell Job Corps Center, an academic instructor charged with developing material for an applied academics class decided to design a molding pot, which is a pot from which molten lead can be poured to various molds to make objects. The design of the pot was to take two class periods (90 minutes total). Objectives for the project included having students: a) be exposed to the molding process in theory and associated safety procedures, b) plan for the construction of a device that can be used safely to melt soft metals in the welding shop, c) estimate the types and quantity of materials that will be required to execute this project. Students were given a rough sketch model and were told to design the pot, specify dimensions, estimate materials needed, and prepare print diagrams so the pot could actually be constructed. In actuality, several of these students did construct the pot in their welding class, following the resulting diagram.
>
> In another rather unique example of project-based learning, the STW Coordinator at the Roswell Center was in the process of developing a "Mars Millennium" project at the time of our wave-two visit. This project was conceived as part of the White House Millennium Council Youth Initiative. The goal of the national project is to engage students throughout the United States to work with educators, community leaders, and professionals to "weave the arts, sciences, and humanities into an exploration of their own communities" and to design an infrastructure capable of sustaining a human community on Mars.[3] The STW Coordinator saw this as a great opportunity for an inter-disciplinary project that would draw on a variety of skills, including SCANS skills, employability skills, academic skills, and vocational skills. In her own social skills training (SST) class for example, she asks students to imagine the difficulties of living in close quarters in a biodome, and has them suggest strategies for coping with the types of social pressures that they would encounter under such circumstances. Although the project was just beginning at the time of our visit, it had the potential of becoming an activity that would unite many areas of the Center in project-based learning. For example, the School-to-Work Coordinator intended to work with her college (ACT) students to design a power plant for a prototype Mars biodome, and was planning field trips to a college planetarium as part of the project. Moreover, she received support for the project from the Center's new academic manager, and curriculum materials from the project were already being integrated into some of the academic and GED classes. The project had a number of supporters outside the academic and vocational

---

[3] The project's web sites are mars2030.org/ or mars2030.net. Main sponsors of the Mars Millennium Project are the U.S. Department of Education, the National Aeronautics and Space Administration and its Jet Propulsion Laboratory, the National Endowment for the Arts, and the J. Paul Getty Trust.

> departments. For example, the Center's recreation supervisor had discussed the role of recreation and sports in the project with other Center staff. He envisioned working with a group of students who were interested in outer space and astronomy to create a model display "biodome." As part of their participation in the project, students would learn first aid and issues related to nutrition and hydration, such as the importance of balanced meals and the daily intake of water and other liquids that are necessary to support human health. Because the project not only involves science but also art, he also suggested getting the arts and crafts teacher involved in the design of the project. For him, the project would be centered on students "trying to survive in a biodome"—a weekend spent in the biodome would be similar to living on a test shuttle. He also imagined that the project would teach students about the skills necessary for space colonization while at the same time learning the value of recreation and sports in any environment. Other Center staff saw value for students in that the project would help them develop skills in critical thinking, using resources, sequencing activities, planning, and budgeting time. The STW Coordinator also hoped that a successful outcome to this project would make students feel that they were as good as students in any other type of school. In this way, she saw the project as an opportunity to help students improve their self-esteem.

These examples illustrate the potential of project-based learning in simultaneously teaching an array of skills while engaging the students in a meaningful and "real-world" activity that produces a tangible product. However, PBL was used quite infrequently. Moreover, sometimes when it was used, learning objectives were not clearly spelled out, nor was it always made clear to students what skills they were learning and how these related to their classroom activities.

Service Learning. Service learning represents another potentially valuable opportunity to teach multiple skills in context while having students produce a tangible product or service of benefit to others. The off-campus community service projects that many Centers pursued thus clearly can be classified as an instance of active learning in a STW framework.

In the instances we heard about, carpentry, building maintenance, masonry, and plumbing crews participated in community service projects of clear benefit to their communities. Some projects included refurbishing local park areas. Other Centers assigned crews comprised of students and instructors to work on Habitat for Humanity projects, building housing that low-income people could own. At the Tulsa Center, students participate in "paint the town" days, in which they contribute their time to painting bridges and other public places. More recently, the Tulsa Center "adopted" a local recreation Center and all of the students in BAM and related trades have been contributing their time to renovating the Center.

Not all service learning projects, however, involved the building trades. For example, at a couple of Centers students worked as tutors in local elementary schools. This experience helped them reinforce their own learning in the process of teaching it to others.

These projects not only extended VST-like learning to new surroundings, but they also provided valuable services to surrounding communities and generated good will for the Centers. In several cases, staff commented about marked improvements of local perceptions of Job Corps. According to one staff, before the community initiatives, Job Corps rated only somewhat better than "the Federal penitentiary" in the community. Now, as a result of the involvement of Job Corps participation in community projects, it is seen as a positive and valuable community resource.

The one weakness we observed in many of these projects is that Center staff did not always see the connection to STW. Thus, often the initiatives were pursued with an eye to allowing vocational students to practice their trades, while providing a valuable benefit to the community and bestowing good-will on the Center. However, because they were not explicitly viewed in a STW context, much of the learning potential in these projects was lost. Thus, the projects' learning objectives for the students were not often identified, nor were students given the opportunity to play a strong role in planning.

Computer-aided Instruction. Computer-aided instruction (CAI) has a long history in the Job Corps context, and thus in and of itself can in no sense be thought as new. Moreover, CAI typically does not constitute an active learning method, in that it has often been used to provide students with drill-and-practice exercises.

However, recent guidance from the National Office has spurred Job Corps Centers to promote computer literacy and this has sometimes caused them to use this valuable resource in new ways. Thus, in many of the Centers we visited students are given access to computers to conduct research via the Internet. The "Eagle Room" at the Tongue Point Job Corps Center provides an example of this.

> At Tongue Point, the new "Eagle Room" is an architecturally open and attractive classroom designed inside an old hangar building and has about 15 new Internet-linked computer terminals. This facility is intended to serve several purposes. First, all Tongue Point students are expected to achieve a basic level of computer literacy, including the use of common text and

> graphics packages. Those students who do not have a basic knowledge of computers attend an *Introduction to Computers* course. However, the Eagle Room is also the Center's focal point for applied academic instruction and high school education. Since early October, the senior academic instructor, who supervises the room, has gathered applied academics materials from several of the vocations, and students work independently on these units in the Eagle Room. High school students use the room for web-based research, which the academic supervisor hopes will to some degree replace more costly textbook-based learning. He also plans to develop projects that students studying in several disciplines (e.g., math, science, English) can work on jointly.

Adopting New Instructional Materials

During the past several years, the Job Corps system has encouraged the use of applied academics as one means for teaching math and English in context. During our site visits, we saw several different examples and approaches. Sometimes these materials were procured from vendors as "off-the-shelf" products and in other cases they were developed by Center staff. Among the most typical examples of the former were workbooks with titles such as the "Math for…" series (e.g., Math for Welders) or "Everyday Math for Building Trades," and so forth. These books included exercises that involved having students solve math word problems that were related to their trades.

Although we saw many examples of the use of applied academics across the sites we visited, it was not the primary approach taken to teaching in any of the Centers. In all cases, what was called applied academics supplemented basic education courses (and occasionally GED courses), but never replaced the traditional approach to teaching these courses. To this extent, applied academics had become an "add-on."

Perhaps because Centers took this approach, staff in many instances told site visitors that they believed that adopting applied academics was an unnecessary extra burden for them and their students. Thus, if applied academics occurred in the vocations, it was believed that it would take student time away from meeting TAR requirements; if it occurred in basic skills or GED classes, it could divert students from showing gains in TABE scores or GED completion.

That said, most Centers used applied academics to at least some extent. Some did so as a result of a systematic effort, whereas in other Centers applied academics was introduced through the efforts of individual teachers.

Systematic Approaches to Applied Academics. As we discussed earlier in this chapter with respect to the structure of learning, Centers had several strategies for adopting applied academics Center-wide. In some cases, individual instructors were assigned as applied academics instructors. At these Centers, applied academics is designed to help students understand the relationship between their vocational learning and academics. Typically there is time allocated for joint planning between a vocational instructor and the applied academics instructor, at which time the academic needs of the students are discussed. Based on this, the applied academics instructor develops some instructional materials that he or she delivers to students, usually in the vocational class.

Certainly one advantage to this approach is that the staff that have the responsibility to develop applied academics lesson plans are provided with the planning time to do so. Moreover, they can tailor the materials to the instructional needs that the vocational instructors have identified. However, one potential disadvantage of this approach is that exposure can be relatively infrequent. For example, at one of the Centers we visited, teachers who specialize in applied math and English rotate among the various vocational classes. But because this is a large Center and these teachers have other classes to teach, they visit every vocational class only once approximately every forty teaching days. For this reason, students may only have one or two applied academic classes in math and English during their stay at the Center. In other cases, the applied academics instructor must wait to be invited by the vocational instructor before a lesson plan can be developed or delivered. This situation makes the effort very sporadic and prevents a more comprehensive approach to learning.

Another related example of a systematic approach is the clustering of academic and vocational instructors and, in some cases, other Center staff. For example, one of the Centers we visited had formed four pods, each of which was structured around two similar trades and consisted of the relevant vocational instructor, an academic instructor, and representatives from residential living and administration. Participants in each pod meet once a week for 45 minutes as part of the teachers' regular schedule. Center students attend an applied academics class period every day they are in their academics rotation. The academic teacher then uses this period to present the applied academics module developed by the pod. Unfortunately, this Center found that this approach has not had the impact that Center proponents have hoped it would, because the pods have had difficulty developing consistently high-quality materials.

Efforts of Individual Instructors. In contrast to some of the more systematic efforts that we described above, there were also many examples of academic instructors who—either by themselves or together with vocational instructors—developed their own applied academics curricula and lesson plans or used off-the-shelf workbooks that had been purchased or that were otherwise made available.

At one Center, for example, a math instructor developed math modules particularly relevant for the electrical and landscaping trades. Using standard math textbooks, she created lesson plans tailored to these students' needs. In another Center, the math instructor used an existing algebra curriculum to tailor lessons particularly relevant to the electrical trades. Although these lessons did not necessarily constitute a change in content, the change in organization and presentation was more focused on the needs of students in this trades. According to the instructor, this simple shift in emphasis helped student to gain confidence and work skills. In several cases, vocational and academic instructors collaborated to develop applied academics units in such diverse subjects as landscaping, carpentry, and painting.

In the example below, we discuss the case of one Center in which a math instructor drew on existing textbooks to develop an applied academics curriculum. Although the materials he selected were of high quality and were appropriate for use for his students, the approach he adopted had as a drawback the fact that he added to—rather than modified—the already existing curriculum.

> One Center added three new levels of applied academics to the basic mathematics course. Now, in addition to completing the original levels 1-4 of basic math that were once mandated by the Job Corps National Office, students also study applied math. After completing the basic mathematics sequence, students are expected to study applied math. For example, level 5—the first of the applied academic levels—is taken from the book, "Practical Math for Consumers." This level, which is oriented toward all Center students, has units that cover subjects such as salary, take-home pay, choosing a bank, and using a checking account.
>
> Units in other levels are tailored to specific trades or co-designed by the math teacher and a vocational instructor. For example, the electrical instructor at this Center wanted to teach students about measuring distances between electrical outlets and was currently working with the electrical instructor to build a unit on this topic. Although these applied academics materials contextualized math in a way that is appropriate for Job Corps students, they were added onto the existing curriculum. Rather than organizing the curriculum around applied academics principals, students who do not "test out" on math TABE tests are supposed to complete not only the

> traditional math curriculum, but also the new applied academics curriculum. Although in practice, very few students actually do this, to the extent that students do complete the entire cycle, they are obliged to spend more time in math classes than they otherwise would.

We contrast these efforts to systematic Center efforts, but in fact the distinction was often one of degree rather than kind. In nearly all of the examples in which instructors collaborated on individually developed applied academics, they had the support and encouragement of the administration. A major distinction, however, was that outside of those Centers that we describe as having systematic applied academics initiatives, few instructors were given release time to develop these curricular units. Rather, they generally did so in addition to their regular duties.

There are some clear drawbacks in relying too heavily on individual efforts to develop an applied academics program. The first is that instructors may have little experience in curriculum development. This problem was overcome to some extent when instructors from a number of Centers attended regional STW conferences devoted to preparing lesson plans and writing curriculum—in particular for applied academics. Another serious problem to this approach is that instructors may not have the time to devote to developing curricula. As we mention above, several Centers made time for joint lesson planning for applied academics, but this was the exception rather than the rule. Especially in those cases where applied academics has not yet been systematically institutionalized, a third, and perhaps the most serious problem in ensuring the continuity of applied academic efforts, is the high rates of turnovers among academic staff, which we encountered at many of the Centers we visited.

CHALLENGES TO IMPLEMENTATION

Many respondents indicated that modifying classroom-based learning represented the most challenging aspect of STW. Although many Model Centers have made efforts to modify the content of classroom learning and instructional strategies to reflect STW principles, for the most part these changes have not been substantial. Most commonly, these efforts involve only a few instructors or a few class periods, and thus do not represent systemic reform efforts. Because Job Corps Centers have been accustomed to delivering DOL-prescribed curriculum, making changes to the content of classroom instruction represents "new territory" for them. Perhaps partly as a result of their lack of experience in this domain, several of the Model Centers have adopted new strategies only to discover their approach was not effective or suitable.

Although the move to implement applied academics was neither as wide nor as deep as is called for by the STW initiative, the efforts that have been undertaken should be viewed as initial steps in a longer process. Indeed, about half of the Model Centers have identified modifying the content of classroom learning to better reflect STW principles as a priority for the future. In keeping with this, staff at several Model Centers have already established curriculum development committees, which are charged with designing a more integrated curriculum.

If they are to be successful, their efforts at implementing an effective classroom-based learning component in the context of STW will require two essential actions. The first is integrating the content of employability and SCANS skills, academic instruction, and vocational instruction so that all are student-relevant and mutually reinforcing. This requires writing new curricula in the context of a vocational area, and represents a major, up-front investment of personnel time and technical assistance and close cooperation among multiple instructors. Second, a STW approach requires utilizing instructional strategies that prepare students for the demands of both future education and the workforce. Students will need opportunities to develop the important critical thinking, problem-solving, and interpersonal skills necessary in higher educational and business environments. This often requires individual teachers to modify how they provide instruction, as well as the kinds of learning opportunities they make available to student. New methods must be used that will provide a context for student learning and opportunities to practice and demonstrate new knowledge and skills.

Importantly, these two elements cannot be developed in isolation if SBL is to be implemented to its fullest. Integrating content without ensuring that students have opportunities to apply new learning in a structured and supportive classroom environment provides but half of the equation—a student may do a math problem from a workbook that relates to a vocation (integrating math and a real-life function or vocational context), but if concepts are not applied to a work or work-like setting, the math problem can often remain just a math problem from a workbook. Conversely, that same student may be involved in measuring the dimensions of the classroom to determine volume (an active learning approach), but unless the curriculum has been well integrated to include the application of learning, the connection between the academic content and the vocational skill might only occur coincidentally.

Our analysis suggests that the challenges associated with implementation were centered around these two essential elements of SBL—curriculum integration and instructional strategies. The remainder of this chapter will explore these challenges to implementation.

Curriculum Integration

Integration calls for bringing or incorporating disparate parts into a whole. As it relates to curriculum development, this means that several programs of study (in the case of Job Corps, academics, vocational training, and employability and SCANS) are combined into one "course" that would teach the various "subjects" at the same time. Logically, this would mean that vocational training and work become the setting, or context, for learning. For example, students in culinary arts would be taught math using recipe measurements (fractions), dietary requirements (calorie units, grams of fat, sugars, carbohydrates, etc.), and how to order supplies (basic numeracy, estimation), and possibly calculating deductions on a paycheck (numeracy, percentages). Reading would be taught using food service terminology that appears on supply order forms, recipes, operating manuals, employment applications, resumes, etc. Employability would be taught through everyday processes to accomplish the work, such as working as a team, effective communication, working with diversity, organizing information, using technology, etc.

Our analysis suggests that there were three primary challenges associated with integrating learning content:

- Integrating curriculum requires a high level of effort by a variety of instructional staff. Basic academic, GED, SST, and vocational instructors must all work together to identify relevant content and develop learning objectives that are crosswalked to all subjects.
- Instructional staff may not possess the specific expertise and experience to integrate curricula. Curriculum development is an educational field of study at the Master's level. Instructors cannot be expected to have this level of expertise.
- Center structure and tradition often works against integrating curriculum in academic classes. Vocational, academic, and SST classes and departments are historically separate entities within the Job Corps structure. Integrating curriculum thus often requires modification of entrenched organizational structures.

With respect to the first of these, curriculum development, in itself, is often a full-time job, and we observed that this function was generally an additional assignment along with regular teaching duties and responsibilities. Typically, both academic and vocational instructors have full class schedules that necessitate being in the classroom on a full-time basis. Although instructors may have planning periods built into their daily schedules, the planning periods for vocational and academic instructors do not always coincide. Vocational instructors often had the additional responsibility of interacting with worksite supervisors while students were in the work-based learning component. Carving out enough time for focused and productive meetings to develop integrated curricula that would teach three areas simultaneously was just not a realistic possibility within the structure at many Centers. As a result, efforts were frequently based on isolated attempts by individual instructors who devoted off-duty time to integrated curriculum development.

A few Centers made modifications to provide blocks of time for instructors to meet. At one of these Centers, communications and linkages between academic and vocational instructors was fostered when a substitute teacher was hired to free up an instructor to solicit input from vocational teachers for integrated math curricula. The math instructor met with each vocational instructor and then followed up with monthly meetings with all instructors. At other Centers where this occurred, the addition of a substitute teacher to free up time for curriculum development came about toward the end of the two-year period, and we are not able to adequately evaluate how this approach effectively addressed time and effort issues.

We observed a number of other efforts to address this challenge, including monthly meetings of academic and vocational instructors to plan integrated curriculum units that also include employability skills, and scheduling common planning periods to develop applied academics units. These efforts were for the most part the exception rather than the rule.

We have also mentioned that, generally, developing integrated curriculum relied heavily on the efforts of individual instructors. The problem with this reliance however, is the high degree of turnover among academic instructors. There was no guarantee that the curricular units developed by instructors would remain at the Center when the instructor left; nor were there guarantees that the unit would be used by incoming teachers if it did remain behind. Without a system in place that provides the time for all instructors to focus on developing integrated curriculum, integration will not occur to the degree necessary to contribute to an effective classroom-based learning component.

Second, not all teachers possess the specialized expertise to develop curriculum that crosses multiple content areas, even when the planning time was made available to them. This is not to imply that efforts to develop applied academics at the systems level or individual efforts were not successful—indeed, we have highlighted several examples of effective approaches to curriculum integration. Rather, the issue is developing integrated curriculum to the scale necessary to effectively implement classroom-based learning consistent with STW principles.

Creating a lesson plan that teaches spelling using vocational or employability related terminology is one way of integrating curriculum that every instructor should be able to accomplish. However, developing an entire program of study that crosswalks academic, vocational, and employability skills concepts and content, and that includes a variety of activities that incorporates learning goals and objectives, requires a discrete set of skills and knowledge. Without a full understanding of what needs to occur and, as importantly, how different subject areas are best combined, integration will rarely include the depth required to maximize the benefits of this approach.

Professional development activities can assist with building instructors' knowledge and skills in this area. Several Centers took advantage of applied academics conferences and workshops organized by the National Office. But these were typically sporadic or isolated instances. Instructors were thus often left to their own devices to adapt existing, or create new, curricula that integrated content from multiple subjects.

Last, separate classes and departments contribute to the isolation between vocational, academics, and SST. Academic classes are rarely organized by vocation, requiring academic instructors who want to provide integrated instruction to incorporate multiple contexts for learning. For example, students in a reading class could be enrolled in several different vocational classes – BOT, plumbing, HOT, electrical, masonry, landscaping, carpentry, BAM, etc. While not an impossible task, utilizing different contexts requires additional time and energies to integrate across a range of vocations (time and level of effort has already been identified as a challenge), and as well runs the risk of losing the interest of students who do not see the connection between the academic instruction and their particular vocation. "Applied academics" classes are sometimes able to address this challenge by grouping students from the same vocation in the same class each day. This allows instructors to focus on developing and delivering units that teach academic skills in a specific context.

The separation of departments also contributes to the isolation between academics and vocational training. Each department has a different focus, both important to the students' development as well as the Center's attainment of specific performance measures. Thus, full integration becomes difficult unless each department recognizes the benefit of combining objectives and efforts toward a common intermediate goal. Of the Centers that made meaningful advances toward true integration of academics and vocational training, learning for job skills became the organizing influence. Administration, teachers, and staff emphasized getting good jobs, with everything else supportive to that goal. This shift in emphasis seemed critical to the Centers' ability to coordinate the many activities affecting classroom-based learning. Superfluous activities were reexamined and either altered or dropped. Classroom learning became more streamlined and structured around either requirements of vocational training or WBL.

Instructional Strategies

Our analysis suggests that there are two major challenges to incorporating new instructional strategies:

- Students demonstrate a wide range of academic learning levels, requiring instructors to prepare and teach lessons at many different levels to address students' learning needs.
- Using different instructional strategies (active, contextual, project-based learning) necessitates individual change. This change, particularly for academic instructors, requires instructors to move from a didactic approach to a student-centered, experiential model where instructors become facilitators of learning.

The variety of student learning needs poses a dilemma in every educational setting. This is true within public and private schools, and at elementary, junior high, secondary, and post-secondary institutions. It is exacerbated when the student population has been disconnected from the educational system—the very population enrolled in Job Corps. Job Corps instructors have traditionally addressed this disparity in academic achievement levels through a prescribed curriculum, computer-assisted instruction, and various supplemental materials that provide lessons geared to different learning levels. These curricula allow students to start at their individual level of achievement and progress sequentially through skill and knowledge development. An assessment-driven strategy such as this is sound educational practice, allowing students to develop prerequisite skills, and build on those skills as they move through increasingly complex knowledge and skills to achieve incremental successes along the way. This strategy alone, however, is not consistent with the instructional approaches included in a STW framework. With the emphasis on an integrated approach, instructors are faced with the quandary of how to introduce and structure the content to allow for this variety of learning needs.[4]

Implementing classroom-based learning consistent with STW practices and principles also often requires individual instructors to modify instructional strategies. This is particularly the case with academic instructors, who have relied on a prescribed curriculum that focuses on individualized instruction through workbook activities and computer-assisted instruction. While vocational instruction typically uses a hands-on, experiential approach, active and experiential learning[5] approaches in an academic classroom setting require a different way to introduce and reinforce new knowledge and skills. Not all academic instructors are well-versed or experienced in these approaches, nor do they have an understanding about the manner in which they are most effectively used. Again, capacity-building activities are key to developing and applying new instructional strategies and approaches. However, as is described in subsequent chapters, professional development efforts did not always occur to the degree and with the frequency necessary to influence positive change.

Contributing to these specific challenges was the broader issue that most Centers focused initial implementation emphasis and efforts on the work-based learning component, or defined STW synonymously with work-based learning. Thus, their vision of STW was narrowly interpreted as an opportunity for students to apply vocational skills learned on-Center to work settings. As a result, efforts at involving academic instructors and developing integrated curricula often took a "back seat" to work-based learning. When STW was subsequently redefined to include classroom-based learning, staff had neither the conceptual background nor previous exposure to mobilize effectively around developing the component. Uneven efforts resulted from this disconnect, and some Centers never were able to regroup to the extent necessary to effectively develop this component.

---

[4] This issue points to the connections between curriculum and instructional methodology. Integrated curricula often presupposes that students have basic, prerequisite skills. If students have skill deficits, the instructional strategy(ies) must be able to accommodate remediation, frequently requiring instructors to move to a more didactic approach to teach a particular concept. The issue then becomes what one does with other students who do not need the remediation.

[5] Active learning is where students learn by doing, thereby applying information or skills. This is usually done in conjunction with contextual teaching. Active learning is sometimes the only method to learn social skills, e.g., critical thinking, and working as a team. Active learning provides students with opportunities to practice new skills and has always been a traditional teaching method in vocational training. Active learning necessitates attending. One cannot take mental vacations while performing a newly learned task. Experiential learning takes place when a person is involved in an activity, looks back at it critically and shares what happened, determines what was useful or important to remember that could be used in real-life situations, and uses this information to apply what was learned to another situation.

VI. WORK-BASED LEARNING

The Job Corps "Characteristics of a Comprehensive STW System" provides clear guidance with regard to the elements that indicate effective STW work-based learning (WBL). These were delineated in Exhibit I-1 of Chapter I and include the admonition for Centers to develop quality worksites where skills recently acquired on Center can be further developed and new skills can be learned and that reflect an array of learning needs and styles.

This chapter will address the degree to which Job Corps Centers were able to implement these work-based learning principles and practices, examine the challenges associated with implementation, and offer examples of effective practices and implementation strategies. We will begin with an examination of how Centers recruited and engaged employers in order to develop quality work-based learning opportunities. This will be followed by a section that explores the types of work-based learning activities provided, characteristics of worksites, and how work-based experiences were scheduled within the overall Center structure. Next, we will examine the content provided through work-based learning activities, including opportunities for different levels and types of learning at various times during a student's enrollment, and how learning is documented. We will conclude with a discussion of the challenges to implementation.

RECRUITING EMPLOYERS

Each Center placed a strong emphasis on developing and implementing the WBL component of their STW initiative. This required Centers to identify and develop sufficient numbers of worksites to accommodate large numbers of their students. Moreover, not just the quantity, but also the quality of worksites is important. Thus, within the school-to-work framework, worksite development needed to ensure that supervisors would assume the role of instructors and mentors and that opportunities for students to develop new skills would be provided.

To accomplish these objectives, the STW Coordinators typically devoted a major portion of their time to recruiting employers and maintaining effective employer relationships. As was noted in Chapter IV, some Centers reorganized somewhat to provide assistance for the STW Coordinator as it became apparent that the multiple responsibilities often associated with the position tended to become more than one individual could accomplish effectively; thus, vocational instructors or placement specialists were assigned to support the Coordinator's employer recruitment efforts. More generally, as the internal partnership grew in strength and STW gained support Center-wide, additional staff—and especially vocational instructors—informally began to assume some responsibility for the recruitment and maintenance of employer relationships.

These individuals typically utilized a number of employer recruitment approaches. Often, STW Coordinators would initiate a general recruitment campaign to generate interest with a variety of local employers and establish a potential "pool" of worksites from which to draw. This strategy frequently included having the STW Coordinator attend employer Job Fairs where employers were easily accessed for program presentations, use local and regional help-wanted sections in the newspaper to develop employer leads, use and develop contacts at One-Stop Centers, and contact human resource departments at larger businesses in the community. This approach usually resulted in a varied employer base representing multiple occupations—even though not all employers who were recruited were ultimately used as WBL worksites, due to a lack of match with students' needs, transportation issues, and the like.

Many Centers also employed a "trade-specific" recruitment strategy, similar in intent to a general campaign, but more focused on particular industry or trade groups that corresponded to specific vocational training provided at the Center. This approach tended to allow STW Coordinators to concentrate efforts on establishing deeper working relationships with a selected niche of potential employers.

As some Centers began developing and expanding their work-based learning experiences, individual staff began to view their community ties as possible resources and started to bring these to the attention of the STW Coordinator. Thus, at one Center, staff who belonged to professional organizations arranged for the STW Coordinator to make presentations at meetings. At other Centers, academic, counseling, administrative, or other staff members would often initiate contacts with personal acquaintances in the business community. At several Centers, individual staff members identified the potential that non-profit and public employers held for quality work-based learning experiences, and Coordinators then began tapping into these sectors for additional work-based sites.

Many Centers have also focused on efforts to involve the broader business community and heighten community awareness of Job Corps to lay the groundwork for employer recruitment. Thus, Centers held a variety of open houses and breakfasts (or luncheons or dinners) for employers to promote the Center's potential as a community resource and stakeholder. Other Centers opened their facilities for various trade association meetings and other employer-based groups in the hopes of increasing community support and the potential employer base. Others relied on their Industry Councils. For example:

> The Tulsa Job Corps Center had good success in recruiting employers by encouraging an active role for the Industry Advisory Committee (IAC). Identifying that many businesses represented on the committee had not spent time on-Center, other than "coming through the front door directly to the conference room," the Outreach Director actively encouraged IAC members to tour the Center and speak directly with students and instructors. Once the committee members agreed to visit, they were very impressed with the students and the quality of instruction, and several of the employers agreed to hire students as STW interns – and were very satisfied with the results. After having consolidated the support of the IAC, the Outreach Director now spends a considerable amount of time off-Center speaking with area employers. When he encounters difficulties in recruiting other employers as potential STW internship placements, he asks IAC members if they know individuals in the businesses that Job Corps is targeting. Because Tulsa's business community is tightly knit, committee members were often able to advocate for student internships with these businesses.

STW Coordinators also often draw on existing effective partnerships and relationships to enhance potential work-based learning opportunities. For example, several Coordinators are actively involved in meetings and planning sessions for the local One-Stop system, thus gaining labor market information and developing employer contacts through this local resource. Similarly, another STW Coordinator finds her relationship with the County STW Partnership to be especially helpful in finding worksites or employer contacts for specific vocations.

In addition to these fairly generic approaches to employer recruitment, all Centers have incorporated a student-specific strategy. STW Coordinators meet with students—either individually or within the structure of a School-to-Work Committee—to get to know the student and determine his/her interests. Based on this interaction with the student, as well as communication with the vocational instructor and other Center staff, the Coordinator contacts employers with whom s/he has developed working relationships. Here, the focus is on developing work-based learning opportunities consistent with the abilities, training needs, and interests of individual students.

At several Centers, vocational instructors and union trade instructors also played a key role in developing worksites geared to specific students, especially during frequent or extended vacancies of the STW Coordinator position. Recruitment efforts by vocational instructors often build off their personal and industry contacts for either referral resources or direct work-based learning worksites. For example, at one Center where there was a lengthy coordinator vacancy, vocational instructors developed several worksites for students in dispensing optician and dental assistant training by using personal contacts in those fields. Similarly, unionized trade instructors at this Center utilized business contacts and relationships to identify and place students in vocational-related training opportunities.

However employers are recruited, Centers often benefit from the employers' involvement in ways other than having access to worksite learning opportunities. For example, once they were involved, employers have reviewed training curricula and equipment to assist the Center in better understanding the needs of the business community and formulating modernization requests. Similarly, one Center has broadened and enhanced employer relationships by responding to suggestions to upgrade its business, data entry, and electrical trade programs; they have purchased new office applications software, ordered electronic scanners to upgrade cash register training for students in the retail trades, and added energy efficiency as a topic in the electrical trades curriculum.

As these examples suggest, employers constitute an enormously valuable resource for STW programs in a variety of ways. However, a common theme that emerges from the Centers we studied is the tremendous "leg work" that is often required. Moreover, whether Center staff develop new relationships or build on existing professional contacts and linkages, they must "customize" their approach to each employer to address individual needs and concerns. Similarly, they must identify the ways in which employers themselves stand to benefit by their involvement. For example:

> The Atlanta Job Corps Center utilized local labor market information to determine that small businesses in the area hire most of the new workers. It also discovered that smaller employers can normally offer students a greater degree of exposure to an array of work-related tasks and functions, as employees who work at smaller companies often "wear many hats." Thus, the Atlanta JCC has engaged in aggressive efforts to recruit these smaller

> businesses, often appealing to personal relationships and the employers' sense of community as well as their need for labor. To clarify training goals for students, employers are asked to sign a contract prior to a student's placement for training. This contract articulates the training focus of the WBL placement and outlines worksite, Center, and student responsibilities. Overall, however, employers are viewed as partners, rather than merely providers of WBL sites, and there is thus a concerted effort to make employers a well-integrated element of Center life. For example, employers' comments on the TAR have led to changes in classroom training curriculum in both vocational and academic training. There are now over 75 active employers who provide a variety of WBL activities, such as training, job shadowing, guest speakers, etc.

THE STRUCTURE FOR LEARNING

The structure of work-based learning often influences the type and degree of learning that takes place within the school-to-work framework. In this section, we will discuss how model Centers designed work-based learning and how that configuration contributed to effective implementation. Specifically, we will examine the types of work-based experiences available, the types of worksites utilized, and the scheduling and sequencing of work-based learning activities.

Types of Work-Based Learning Activities

Work-based learning activities at the Centers can be categorized in one of two categories: *exposure activities*, such as job shadowing, industry tours or field trips, guest speakers, and career fairs; and hands-on *experiential activities* that provide opportunities for skills application, such as internships.

Exposure Activities. Most Model Centers provide a fairly inclusive range of exposure activities. Among these activities, there was a high degree of involvement of employers as guest speakers, who discuss their specific occupation or industry and provide information about job requirements, duties, employer expectations, occupational outlook, etc. These are typically well-structured events, where employer presentations are often followed by a student question-and-answer period. Vocational instructors are also frequent hosts to employers who come on-site to conduct practice interviews for students or demonstrate new trade related techniques.

Career fairs—either coordinated by Center staff specifically for Job Corps students or organized by nearby public education institutions and attended by Job Corps students—provide additional exposure opportunities. Usually, local employers and trade associations are represented and provide information to students on entry-level job requirements and career opportunities. On occasion, larger employers that operate on a regional or national level are also in attendance. Student interaction with employers at career fairs is generally less structured than with on-Center guest speakers; students often independently select the employer(s) in which they are interested, and organized opportunities for students to discuss and reflect on information they received are limited.

Job shadowing, another exposure activity, appears to be utilized at most Centers and often takes place in a variety of settings. Thus, students might shadow on-Center vocational classes as part of orientation; shadow on-Center staff from clerical support, food service, maintenance, etc.; or shadow vocation-specific employers. Along these lines, National Groundhog Day represented a big push at a few of the Model Centers, which endeavored to have all or most students participate.[1]

The duration of job shadowing varies. In some cases, the shadow is a one-time, two or three hour activity; in other cases, it lasts a week or more for an hour per day. In either case, job shadowing can be an effective way in which to engage students in exploring opportunities in their selected vocational field. It can also produce a number of important side benefits that contribute to student success and lead to "buy-in" from a wider range of individuals. The Kittrell Job Corps Center has developed a unique and effective approach to job shadowing:

> Through "Adopt-a-Trade" students are assigned to various Center staff for job shadowing and mentoring (e.g., clerical support staff works with BOT students, finance staff with students in retail, health services staff with students pursuing training in health occupations, maintenance staff with students in BAM, etc.). About 50 staff members are involved at any one time. In addition to providing shadowing opportunities, the staff interact with and mentor students, take them on field trips, and supervise other related activities. This design helps students get more involved in their area of vocational interest and learn about different aspects of their trade, as well as develop close connections with adults. As an added benefit, the program appears to have increased staff ownership in STW.

Field trips and workplace tours are another exposure activity reported in many Centers. Generally, groups of students (most often in the same vocation) tour a particular place of business and are guided by an employer representative who explains the business, occupations and careers within the business, employer expectations, etc.

---

[1] Groundhog Job Shadow Day is a national effort to provide students with job shadowing experiences (see www.jobshadow.org).

Students typically have an opportunity to ask questions either during or following the tour.

Exposure activities serve an important function in the STW system within each Center. As an initial introduction to the opportunities, demands, and expectations of particular occupations and industries—or the workplace in general—exposure activities can "ease" a student into more sophisticated and demanding WBL activities. As a means of engaging employers in STW efforts, exposure activities provide for a fairly low-intensive initial involvement that can later be expanded and refined.

Experiential Activities. "Hands-on" experiential activities may take place either on- or off-Center and include internships and vocational skills training (VST) or community service projects. On- and off-Center WBL experiences are generally tied to the students' areas of vocational training or to employability skills development. Off-Center experiences sometimes offer students a wage or stipend. Coordinators and/or vocational instructors communicate frequently with supervisors to assess student progress, and make regular visits to WBL sites to ensure compliance with applicable health and safety standards and child labor laws.

Work-based experiences can be either part- or full-time, often depending on where the student is in his or her academic and vocational training. For example, some worksites are structured to offer part-time WBL placements while students also attend classroom training activities, and then transition to full-time experiences once students complete requirements for their GED and reach a certain level of the Training Achievement Record (TAR). At other times, students participate in WBL experiences full-time from the onset, as when students must have completed a substantial part of their TAR requirements (usually 70% to 80%) and have attained the GED before placement will be considered. We also observed schedules of alternating weeks between school-based and work-based learning until classroom objectives are completed, at which time the WBL experience becomes full-time. Generally, WBL experiences average between two and three months in length, although training duration varies greatly; some are as little as two weeks, while others can be over three months.

VST and community service projects are also utilized as WBL experiences at some Centers. VST projects can occur on- or off-Center; community service projects, as the name implies, occur off-Center and result in products or services that benefit the larger community. They are normally supervised by vocational instructors in the respective trades. Student wages or stipends are not provided for these forms of work-based learning.

Types of Worksites

With respect to experiential activities, Centers generally placed initial focus on developing worksites in the private, for-profit sector that provided paid work-based experiences consistent with students' areas of vocational training. As the STW initiative progressed, however, other settings and structures for WBL experiences were explored, as Centers grappled with logistical difficulties (transportation, Center schedules, arranging visits to monitor student progress), the limited availability of employers (particularly at rural Centers), and students' varying readiness with regard to employability skills. Thus, by the end of the implementation period, many Centers had a combination of off-Center worksites in the private sector, off-Center worksites in public agencies or non-profit organizations, and on-Center work-based experiences.

Off-Center Worksites in the Private Sector. Each Center included private sector worksites in their menu of work-based learning opportunities. Work-based experiences at these worksites were almost always tied to the students' areas of vocational training and were well monitored for student progress. Some employers provided payment to students in the form of wages or a stipend, while others did not. In other cases, Centers negotiated a graduated payment scale for students. For example, students would be placed in an unpaid internship with an employer for two to three weeks, after which the student would be paid at minimum wage for four to six weeks and until a certain number of training objectives were met. Following this period, the student would be paid at the position's entry-level wage for the duration of the work-based experience (typically about one month).

A few Centers developed partnerships with private sector employers that provided more formal employee training. Some Centers are actively recruiting employers with a national presence (i.e., hotel, drugstore, and restaurant chains), where students can take advantage of employer-provided training while on-Center and, upon graduation, transition to employment with those businesses in geographic locations closer to their homes. As another example of students' participating in employers' formal training, one Center developed a worksite at a telemarketing and customer service call center where students undertake one or two weeks of training involving customer service, computers, and/or data entry. Another local employer offers specialized social skills training to all employees, including Job Corps trainees.

Off-Center Worksites in the Public or Private Non-Profit Sector. As the work-based learning component evolved, many Centers expanded their initial focus on employers in the private sector to include public and non-profit agencies as effective WBL worksites. Centers in rural settings often faced a shortage of potential private-sector employers and, as unemployment rates in these areas tended to be higher than the national average, there were fewer opportunities available for Job Corps students. Therefore, public or private non-profit employers represented an untapped resource for off-Center worksites. At other Centers, staff recognized the potential of worksites in this sector to be able to provide an introductory level of employment opportunities for students, where more time could be spent on developing basic workplace skills. Supervisors at these worksites were often willing to devote more time and effort to employability skills development than private sector employers could spare.

Most WBL placements in this category were unpaid. As with worksites in the private sector, they typically included close supervision, met health and safety requirements, and were well monitored to determine student progress.

On-Center Worksites. A number of Centers have recognized the value the Center itself had as a potential worksite. On-Center WBL experiences were typically unpaid, were generally tied to the students' areas of vocational training, and included placements in various departments (clerical support, maintenance, food service, etc.), with Center staff functioning as supervisors. As with off-Center WBL experiences, training most often focuses on vocational skill development, although employability skills are also stressed. Centers found that on-Center placements were particularly appropriate for students at beginning skill levels, who needed closer supervision, or whose employability skills were suspect.

VST projects can also be construed as on-Center WBL, and usually involve students in the construction trades who have the opportunity to practice their skills on projects that benefit the Center. Such projects can include refurbishing classrooms, landscaping the grounds, building walkways, and the like. Recognizing their potential value to students as well as to the Center, some STW Coordinators have seized the opportunity to add VST projects to their menu of WBL experiences, by structuring projects to meet learning objectives and recording skills gained.

Planning, designing and implementing a project that results in a tangible product of benefit to the community encourages the development of skills beyond specific vocational skills, such as decision-making, problem-solving, creative thinking, and leadership. In other words, VST projects can be rich in opportunities for developing SCANS skills and competencies and providing students with a sense of accomplishment and pride. We provide examples of this below.

> The Kittrell Job Corps Center included its students in a number of VST projects that actively involve students in project planning and implementation. The Center used a portion of their budgeted modernization funds to renovate classrooms to be more like worksites. Students were involved from the start in the planning and design. For example, students designed a store that is operated by students in retail trades, providing opportunities to learn most aspects of operating a retail establishment. Students also contributed to the design of an office, out of which students run a clerical pool that provides clerical support services to Center staff and instructors. These projects provide opportunities at two levels. First, involvement in the planning and design of the classroom renovations contributed to students' sense of ownership. Second, these entrepreneurial projects provide multiple opportunities for students to learn in context; that is, they learn as they are performing meaningful and relevant work. Students can practice skills learned during classroom training, and develop new skills as different situations occur during the operation of a working business.
>
> In another example, students at the Flint/Genesee Job Corps Center, which houses an on-site day care facility, planned, designed and built a screened porch area for the day care staff and family members to use during inclement weather. Students have also designed and built a play area for the children, as well as sandboxes for the children to play in.

It is somewhat surprising that more Centers did not formalize VST projects as structured WBL activities. VST projects lend themselves to effective work-based learning opportunities within the STW framework, as projects are typically reflective of the world of work, provide opportunity for students to apply and further develop skills learned in the classroom, frequently require students to learn new skills, and provide close supervision by qualified vocational instructors. If specific learning objectives were articulated and learning was documented, the VST projects could be considered a quality work-based learning experience. We found, however, that many Centers did not make these connections and, thus, did not capitalize on these potentially learning-rich experiences.

Schedule and Sequence

Centers demonstrated a variety of methods of allocating students to work experiences and sequencing their involvement with their class activities.

Selection of Students. Application to and selection for WBL evolved over the course of this study. For example, most Model JC Centers initially set up a rigid plan and eligibility requirements for "enrollment in STW," which often translated to consideration for worksite placement. Eligibility was typically based on the TAR completion percentage (usually about 40%), as well as behavioral expectations, clean drug screenings, etc. Normally, a formal application process was involved that included referral by the vocational instructor, "sign-off" by multiple Center staff, and review by the STW Steering Committee or similarly-named group. These committees were typically comprised of the STW Coordinator, Academic/Vocational Managers, and one or more individuals from Residential Life, Counseling, and/or Administration. Occasionally, the Center Director or an academic instructor was also a member of this group. An example of this process follows:

> To participate in WBL at one Center, the student must submit a formal application. The application has sections that are to be filled in by the vocational instructor, math instructor, reading instructor, GED instructor, counselor, and the Social Skills Facilitator. After submitting this application packet, the student then appears before a STW panel, consisting of about 8 members, including: the STW Coordinator, the STW Coordinator's assistant, the head of Vocational Instruction, the Social Skills Facilitator, someone from the Counseling Department, the Residential Manager, the Academic Manager, and the Placement Manager. The student is interviewed by the panel and queried about the reasons for wanting to participate. After the interview, each panel member fills out a rating sheet, with categories relating to: trade skills, attitude, accomplishments, appearance, leadership, communication skills, and employability skills; in each of these areas, each panel member rates the student on a 4-point scale (excellent, average, below average, unsatisfactory). The STW Coordinator uses these rating to make a final judgement about whether the student should be allowed to undertake WBL.

Some Centers have maintained this complex and exacting selection process, but we have observed that about one-third of the Centers have streamlined the process during the course of implementation, creating a somewhat less formal and more flexible process. At these Centers, students can indicate an interest in STW (still often used synonymously with the WBL activity) or can be recommended by vocational instructors. STW Coordinators will then schedule an interview with the student and communicate with Center staff regarding the student's social and employability skills, as well as progress in academic and vocational classes. Coordinators may then provide a "refresher" on employer expectations and basic workplace skills, and proceed with matching the student with an appropriate worksite. For example:

> Vocational instructors at one Center currently refer students for work-based learning placement consideration once students have successfully completed the unit on safety requirements, can accurately identify tools, have suitable attire for a worksite, and demonstrate appropriate social and employability skills in class. The student then meets with the STW Coordinator to discuss the Center's expectations of them while at the WBL site, as well as how to conform to the site's expectations. The STW Coordinator matches the student with a worksite, and the student begins the work-based experience.
>
> Another Model Center further prepares its students who are determined ready to enter their WBL experience with an intensive (90 minutes a day for five days) STW training to better orient and prepare students for what will occur and what will be expected of them. The STW Coordinator spends time reviewing job keeping skills such as attendance, work ethics, proper dress, appropriate behaviors, hygiene, punctuality, and the like. The Coordinator also talks about the evaluation process, effective communication skills, job tasks the student may be expected to perform, the importance of a willingness to learn, and logistical issues such as accessing Center meal service, bus passes, etc.

It is unclear whether or not this strategy resulted from a conscious effort to make WBL experiences more accessible to a greater number of students, whether it evolved out of expediency due to the multiple tasks with which Coordinators were charged, occurred due to the less formal meeting structure (and, in some cases, the dissolution) of STW Committees, or a combination of these factors. However, both the less structured and more structured approaches seemed to work equally well in ensuring an appropriate level of student readiness.

A Phased Approach to Learning. At about one-half of the Model Centers, students moved directly into a work-based experience after the application/selection process. The duration of the experiences varied (from two weeks to three to four months), as did location (on- or off-Center), and payment structure (paid, unpaid or stipend). These variations reflected Center-wide policies, idiosyncrasies with respect to individual employers (e.g., with respect to whether or not they would pay a wage to the trainee), and happenstance (e.g., which worksites happened to be available when the student applied for WBL).

However, almost one-half of the Centers implemented a phased approach to WBL activities, in which different types of WBL were available for students at different phases of their on-Center learning. Of these Centers, one-half offered two stages of work-based learning, approximately 40% included three phases, and the remaining few had four stages.

For Centers with at least three stages the first stage usually entailed a job shadow or other exposure activity or a short-term (one to two week) classroom-based seminar to reinforce employability skills. Subsequent phases were differentiated by the focus of training (learning new skills or practicing those already learned), whether the placement was on- or off-Center, or whether or not students were paid. For example:

> The Atlanta Job Corps Center offers job shadowing and three levels of WBL. Job shadowing is available to the largest number of students—reaching 60 during one particular month. Level 1 of WBL has students who are still working towards their GED spend four hours per day in classroom training and the remaining four hours at a worksite where the focus is on work habits or basic TAR skills. This phase may last from four to six weeks. Level 2 usually occurs when students have completed requirements for the GED exam, although students can also enter this level if they are just short of completion. Students must interview well and have completed Level 1 as a prerequisite. In this phase, students may work up to eight hours a day for half pay. This stage may last for several months. Level 3 lasts approximately six weeks and is full time with pay equivalent to that of an entry-level worker or a worker at a comparable level of responsibility. The TAR guides the training activity.

Generally the phases also required a progressively higher level of skill development or readiness for each subsequent stage. For example, students might spend four to six weeks at an unpaid off-Center WBL experience in the non-profit sector to develop and practice employability skills, and then progress to a paid experience in the private sector for an additional period of time. We found this sequencing strategy at the Batesville and Oconaluftee Job Corps Centers.

> During the initial WBL phase at Batesville and Oconaluftee, students are placed with employers in the public or private non-profit sectors. The focus for these experiences is on providing opportunities to learn and practice basic employability skills. At Batesville, Center staff have found public agencies and non-profits to be more "forgiving" and flexible when working with students who have little in the way of experience and employability skills. Staff at Oconaluftee view WBL placements at non-profits as a good way to develop and test students' work readiness before placing them at paid, private sector sites. At both Centers, once students complete the beginning

> level WBL, they are placed with employers in the private sector, where the focus is on vocational skills development.

One Center has instituted a phased approach that focuses on a variety of WBL experiences and allows students to experience different types of job opportunities, which in turn, expands their training.

> At the David L. Carrasco Job Corps Center, on-site WBL activities are required of all students. These experiences usually consist of several short-term (approximately two weeks) experiences at a variety of employers. Following the completion of each WBL experience, students return to the Center for more training before s/he is sent to another worksite for another two-week period. This sequence is continued until the student completes 250 hours of WBL, established as a requirement for graduation from the Center. This approach provides an additional potential benefit for students—opportunities for learning on-site to be connected with learning on-Center are essentially built into the structure.

The absence of quantitative data with regard to successful completion rates or outcomes makes it difficult to compare the effectiveness of these various WBL activity sequences. However, an approach that requires increased student skill development before the student progresses to the next level is consistent with a sound developmental strategy. Students have reported, and several STW Coordinators and vocational instructors agree, that the potential for increased responsibility, skill development, and payment as students move from one phase to another can provide incentive and motivation.

THE CONTENT OF LEARNING

In the STW framework, WBL provides a context for learning and skill mastery. The content of this learning can be simple awareness and knowledge development such as may occur during exposure activities (understanding they types of jobs available in a particular occupation, learning about different wage scales or the kinds of tasks associated with a job, etc.), or it may be more complex such as during an off-Center experience where the student must learn the exacting procedures called for when reading wiring diagrams or construction plans and then applying that information to complete a specific task.

Learning in the context of work has many benefits. First, students can see that a skill is needed in order to perform a certain work function. Learning then becomes relevant to the student as s/he is asked to complete a task that requires an understanding and degree of expertise in that skill. Next, learning becomes meaningful. In addition to the link between the skill and performing a specific work-related task, the young person begins to make the connection between developing skills well in order to perform the task well. Thus, the student learns that mastery of the skill is important. Third, the student can immediately apply a new skill, practice it, make necessary corrections, practice again, and, ultimately, cement the learning. And last, the work environment allows students to transfer learning to other situations. By moving from task to task, often using the same skill, students begin to understand that knowledge and skills have multiple applications and can be used in a variety of situations. This transfer allows the learning to become durable and long-lasting. It follows, then, that WBL can be an effective setting in which to teach a variety of skills, including vocational, general workplace (SCANS/social skills), and basic academic skills.

This section will explore the skills that were taught through the work-based learning component, and the degree to which Centers were able to include a variety of content areas. While exposure activities provided opportunities for students to gain awareness of occupations and industries, knowledge of the labor market and entry-level job requirements, etc., our discussion will be focused on content learning and skill development that took place through actual work experience.

Skills Being Taught

One of the important differences between WBL at Job Corps Centers under STW implementation, and the earlier efforts to introduce students to the workplace (e.g., work experience) was that these earlier programs were designed primarily only to provide student with experience on the job (or, in the case of leisure-time employment, which still exists at many Centers, to provide students with an opportunity to make money). In contrast, in almost all cases, WBL positions are now closely related to students' trades.

Another important distinction is that work-based learning typically begins earlier in a student's Job Corps career and is specifically viewed as a learning activity. A respondent in the Carrasco Center succinctly summarized these differences by noting that, whereas before, employers were expected to be supervisors of well-trained students (who were more advanced in their programs and ready to leave Job Corps), employers have now become instructors of less-trained students.

WBL potentially offers opportunities for learning and skill development in three content areas—vocational, employability (e.g., SCANS, social skills), and basic academic skills. Our observations and analysis suggest that Centers focused training on two of these three areas: vocational skills and employability skills. We did not observe formal academic skill development through the WBL component to any extent. This is not to say that connections were never made between the work students performed and associated academic skills. Rather, the distinction we make is whether or not academic learning was formalized on-site during a student's work-based experience.

By contrast, the connection between work assignments and vocational learning was typically much tighter. To begin with, as noted above, WBL assignments almost always related to a student's trade. Beyond this, WBL experiences were typically designed as opportunities for students to develop and practice new skills. However, there were notable exceptions. In about one-fourth of the Centers, WBL components were more akin to work experiences, in that real-world environments were provided for students to practice what had already been learned, but did not have structures or methods in place for the development of new skills. New learning, when it occurred, was coincidental, isolated, and mostly intuitive.

At these Centers WBL is often little more than a transformation of the old work experience program, often differentiated by when the students are placed at a worksite and the association with the student's trade, rather that with an emphasis on training. Thus, the WBL component appears to be disconnected from the overall initiative, and employers are not consistently familiar with learning objectives or the TAR. Minimal effort has been made to orient supervisors to STW in general or the WBL activity specifically. If formal evaluation occurs at all, the emphasis is often on work behaviors, but even these are general in nature – attendance, punctuality, appropriate dress, getting along with co-workers, and the like. We did not see a great deal of feedback provided to the student to correct behaviors or improve these employability skills. Typical of these Centers' efforts is a site visitor's observation that staff "...seemed far more concerned that students express the right attitude and demeanor in their STW experiences than in their performance of trade-specific skills."

It is not surprising that, at the Centers where this applies, the Center's vision of STW is either just beginning to align with sound STW principles or remains inconsistent. At most of these Centers, there has been high turnover in key positions, such as Center Director and/or STW Coordinator, resulting in lack of clear guidance and minimal coordination, and therefore, erratic and ineffective efforts to enhance the traditional approach for worksite placements.

Vocational Skills Learning. With the exceptions noted above, most Centers have connected vocational skill development to the WBL activity to some degree. The Training Achievement Record (TAR), which lists the competencies associated with a trade that students are expected to master, provides a ready mechanism to link classroom and work-based vocational learning. Employers are normally familiar with the skills included in the TAR; some, in fact, are asked to modify the TAR to make it more specific to the training that will be provided on-site. We also observed that employers typically participate in evaluating student skill development and attainment. Some Centers also capitalized on training programs available through local employers, thereby providing opportunities for students to develop skills not available through vocational courses on-Center. For example:

> Students at the Tulsa Center who were placed at the transportation division of a local school district could take advantage of training and coaching leading to obtainment of a commercial driver's license (CDL). Some staff at this worksite were certified CDL examiners, and they would assist students with training and the paperwork involved in getting the first-level CDL. Training for this certificate, according to the supervisor, opened up possibilities for a variety of placement opportunities beyond transportation services; armored car companies were more inclined to hire security personnel who had their CDL, and construction trades may sometimes need individuals with this credential. This same Center has developed a telemarketing and customer service call center as a worksite for its students. Students placed with this firm may be involved in a one- or two-week training session involving customer service, computers, and/or data entry.

Several other Centers were also able to tap into employer-provided training to teach new skills. Many restaurant chains and hotels have a formal training program in which students can participate as part of their experience; at one Center, a nascent partnership with a Native American tribe at its gaming facility provides a range of training opportunities in food service, building and maintenance, and the like.

In some instances, employer-provided training provides to Centers opportunities to expand vocational offerings; in others, training provided by employers strengthens the vocational training provided on-Center. An additional advantage to this strategy is that employer-provided training will most likely include state-of-the-art equipment, procedures, materials, and industry innovations.

Not all Centers had these kinds of opportunities but most at least ensured links to vocational training for students placed in more traditional work situations. Typically, learning objectives tied to the TAR were in place, and employers could have input into either enhancing or modifying the TAR to align skills consistent with specific WBL positions. Employer feedback through participation in TAR "sign-off" often occurred.

Employability Skills. As implementation progressed, we observed additional emphasis placed on developing students' employability skills at many WBL sites. In some instances, worksites were developed for that expressed purpose. The Batesville and Oconaluftee Centers in particular identified the potential for non-profit or public sector employers to assume a role for employability skills development. As these worksites primarily focused on providing services rather that producing quantifiable output as quickly as possible (i.e., number of calls completed, number of orders taken, etc.), employers and students could concentrate efforts on learning and practicing skills, such as effective communication, task completion, interpersonal skills, and so forth. This is not to imply that opportunities to learn and practice vocational skills were not in evidence, but that more attention might be paid to social skills development. These sites often served as an effective first experience for students before they were assigned to a WBL situation that focused more on vocational skills.

Although they might have focused less specifically on employability skills development, most other Centers ensured that students' training objectives included employability, SCANS, and social skills. This was normally accomplished through the use of the TAR supplemented by a separate evaluation form for assessing social skills development.

Academic Skills. As mentioned previously, academic content was typically not included specifically as an objective of WBL experiences. This content area is the most difficult to infuse into a work situation, as it requires supervisors to fully understand specific academic skills associated with vocational skills or particular work tasks, and then be able to stop the work in progress to remediate, reinforce, or teach a new skill. Moreover, drawing academic learning out of work performed on a job requires a level of skill in teaching methodology that supervisors will not normally possess. Indeed, trained teachers and instructors often find this to be the most difficult of tasks, often exacerbated by the pressure to complete an assigned work task or product within time parameters.

For these reasons, on-Center WBL experiences and VST projects hold the greatest potential for teaching academic content in a work setting, as work structure and deadlines can be modified and academic instructors are available to assist in identifying, pulling out, and processing academic content. However, Centers have not capitalized on this potential of on-Center and VST projects as learning-rich experiences

At most, we did note some coordination between work supervisors and the academic instructors, whereby academic teachers were alerted (usually via STW Coordinators) to basic skills deficiencies that students demonstrated at a WBL placement.

Training Plans, Achievement Records, and Assessment

Training was typically tied to learning objectives included on each trade's TAR. By explicitly delineating the competencies associated with a trade that students need to master, the TAR provides a framework for skill development and affords opportunities for frequent benchmarking of progress. Perhaps owing to this, we did not observe the extensive use of formal training plans in WBL experiences beyond the TAR.

Three innovations encouraged increased effectiveness of the TAR as a training plan:

- *Revision of the TAR at the national level.* The standard TAR for vocational areas has been revised to include employability/SCANS skills. As Centers move to incorporate these revised TARs, training emphasis has shifted to include these new skills.
- *The ability for Centers to modify the TAR to incorporate employer-specific skills.* This flexibility allows the TAR to be made more relevant to the specific training to be provided, and therefore more meaningful as a training plan. When they have input into developing the learning objectives (skills) to be addressed during the WBL experience, employers often appear to be more likely to address skill development.
- *Increased opportunities for employer involvement in completing and/or "signing off" on the skills included on the TAR.* Several Centers encouraged employers to assume responsibility for assessment of student skill development and demonstration. In some cases, employers could actually check off TAR skills that the student had attainment; in others, STW Coordinators or vocational instructors scheduled times when they would sit with supervisors to discuss and evaluate student progress together. This input into the assessment of students' mastery again encourages employer buy-in to training on specific vocational skills.

METHODS FOR LEARNING

As important as what is taught are the strategies used to teach. WBL readily lends itself to a contextual learning strategy, whereby knowledge or skills are taught using a relevant and real-life activity. This real-life situation serves the purpose of establishing a context for the learner to recognize the usefulness and applicability of new knowledge or skills. Thus, learning becomes important to the student because the context (i.e., the ability to do the job) is relevant and meaningful. This said, contextual learning is more than doing or practicing a particular skill or function. Instead, it requires a process for the learner to recognize the specific skill that s/he used, how the skill was applied, whether or not the skill was used well, and then identify other situations in which the skill could be used. This process—often called reflection—demands that the learner critically review skill that were demonstrated, articulate both how and how well s/he used the skill, and then make connections as to transferability, both verbally and through application.

Comparing the strategies used in the WBL component with this description, we find that the vocational and employability skills development that occurred at worksites met several of the principles of a contextual-learning model. Work was both relevant (real-life) and meaningful (important), and students had many opportunities to apply new skills, forming a strong foundation for learning in context. Where WBL was weakest was in the formal reflection process. Depending on the individual worksite and how Centers organized the evaluation process, students may not even have been included during the review of the TAR or other progress evaluations.

Another strength of the WBL that we observed was in the level of supervision that was provided. Students were usually closely supervised, and supervisors were typically knowledgeable about the occupation and provided guidance and direction in the day-to-day accomplishment of the students' assigned work.

That said, the specifics of the supervisory arrangement varied a great deal, even at worksites used by the same Center. The following examples demonstrate this variability.

> The Fred G. Acosta Job Corps Center provides a good example of the variety of learning methods used at sites developed by the same Center. At one worksite, students work under three supervisors: an individual from the human resources department that "checks on them every morning," the supervisors who oversee the assembly floor, and a team leader at the student's assigned workstation. Students receive training on assembly during their first couple of days at the worksite and then are assigned to an assembly team, where they work at a large table that accommodates approximately six workers and the team leader. In this environment, students are provided constant feedback as they perform their assigned job functions.
>
> At another site, two managers supervise STW students at all times. The WBL assignment directly relates to the students' vocational training (plumbing) and students are involved in performing a variety of tasks, both

> independently and as a team. The employer uses the students' vocational training on-Center as a starting point—general knowledge of the field, terminology, etc.—and then teaches the students about the employer's specific product line, how supplies are packaged and distributed, different types of pipe fittings, and the like. The employer provides regular feedback to the vocational instructor and also discusses with the student skill and competency mastery (based on the TAR) on a regular basis.
>
> At yet another worksite, students in HOT are placed at an assisted living facility under the supervision of the Director of Nursing who, along with a charge nurse also assigned to supervise the students, provide opportunities for students to practice skills learned on-Center and learn different aspects of long-term assisted care. While most of the day-to-day supervision is left to the charge nurse, the Director of Nursing maintains close contact and frequently reviews progress (based on skills listed on the TAR) with the student. When specific skills require improvement, other employees at the facility will work directly with the student to address the particular training need.

These differences in how supervision occurred, along with differences in the nature of supervisor/student relationships, the use of the TAR or other tool to assess progress and provide a basis for reflection, the degree of involvement in the process by Center staff, etc., combine to make each worksite's method for learning unique. Generally, however, we have identified two primary approaches that are employed:

1. Strategies that focus on the work performed.
2. Strategies that focus on the work performed *and* that emphasize supervisor/student relationships.

In the first, we see an approach that is primarily focused on the work. Students are looked upon more as regular employees, given specific work assignments and tasks, and held to the same expectations as other employees at the worksite. In these situations, the work is used as the context for skill development and reinforcement, and the emphasis appears to be on the skills necessary to accomplish the work. Supervisors normally provide feedback to students as work is performed or completed. Evaluation, either using the TAR or another evaluation that includes employability skills and job-related learning objectives, may or may not be completed and discussed directly with the student. Thus, while students often receive feedback with regard to performance and/or skill development, opportunities to reflect on the learning are not consistent.

In the second strategy, we notice that the supervisor or other adult at the worksite has taken a personal interest in the students' development and success beyond the work environment. As with experiences in the first category, there is an emphasis on the work and the skills associated with performing particular tasks, students have opportunities to develop new work-related skills and practice those already acquired, and they are provided regular feedback regarding skill development and demonstration. This feedback, however, often goes beyond the particular work setting, providing the student the chance to reflect on what is being learned and thus transfer learning to other situations.

There was a lot of variability within Centers (i.e., from one worksite to the next) as to whether this richer format for learning was in evidence. It is also important to note that worksites that we visited as part of our study were not randomly selected, and as a result some Centers may have showcased their "best" sites. In general, however, the close attention to learning objectives combined with mentoring was in fact rather common in worksites that were non-profit organizations and in the human resource departments of governmental or quasi-governmental agencies. One such case is briefly discussed below:

> One of the sites used by the Gary Job Corps Center provides an excellent example of cross-cultural mentoring. While conducting this site visit, we visited with a human resource manager at Texas Parks and Wildlife. At the time of our visit, she had been working in partnership with the Gary Center for two years. Prior to this collaboration with Job Corps, she had similar types of experience mentoring youth from other DOL-funded programs, such as the summer youth program (SYETP).
>
> She became involved with Job Corps when she lost several of her staff. She had tried without success to get temporary help, and contacted the Gary Job Corps STW Coordinator who sent several work-based learning students. She had strong praise for these students, who she believes helped her meet some major deadlines that would otherwise have been unattainable. She found that all of the students the Center has sent her are "strong in both social and technical skills" as well as "focused and punctual."
>
> In return for what she believes is work of high quality, she takes the task of training students very seriously. When new students come to work, they receive an initial three-day orientation session. Thereafter, she works closely with the trainees to teach the importance of social skills and appropriate dress. Moreover, each student that comes to the job site has a daily talk with her and receives a job assignment. She reviews each student's TAR throughout their stay, and estimates that JC students spend one-third of their time in training and two-thirds working throughout their tenure on the job. Although some students are initially reticent to do so—often because they have a fear of authority figures—she makes it a major goal to encourage

students to speak to her at any time about any concerns or questions that they might have.

In addition to the case described above, we found similar examples of effective training and supportive environments at several other Centers. For example, a landscaping supervisor at the Gadsden Job Corps Center talks with his students about financing their own businesses, managing money, working with people, developing and demonstrating appropriate attitudes and behaviors, and respecting others. During an interview with some students placed with this supervisor, students volunteered that "He takes time with you…He is a friend and a teacher—you don't just want a teacher, you know," and "He tells it like it is." Similarly, at the Flint/Genesee Center, students placed at a VST project with the painting trades instructor were anxious to share how the instructor held them accountable for more that just the work, but also emphasized working as a team, respecting each other and their differences, and helping each other out if someone did not know how to accomplish a particular task, and he would talk with them about how those behaviors would help them in life once they graduated.

In these examples, students are learning through their interactions with adults. They are offered the opportunity to "practice without penalty" and reflect on skills beyond the specific work assignment, and they develop a task-based relationship with a competent, caring adult. High expectations are communicated to the student, a supportive environment is provided in order for the student to meet them, and students have opportunities to reflect on and transfer learning.

However, mentoring as a strategy appeared to be very much dependent on individual supervisors rather than follow from a conscious effort by Center staff to prepare supervisors to assume the role of "mentor." A few Centers provided supervisors with guidance with regard to how they might supervise students, but it did not appear that specific training on mentoring was offered. Thus, these are very much serendipitous occurrences, dependent on the intuitive skills and sensitivity of the work supervisor.

CHALLENGES TO IMPLEMENTATION

While most Centers embraced the WBL component as a welcome addition to Center activities and understood there would be inherent obstacles to implementation, many were unprepared for the impact WBL implementation would have on Center operations, or how issues such as staffing consistency, student readiness, and employer perceptions would affect the quality of the WBL experiences.

We have divided these issues and challenges into four categories:

- Logistics, which include ensuring adequate and timely transportation for students assigned to off-Center experiences and modifying student and Center schedules to accommodate work schedules common in the private sector;
- Staffing consistency, particularly the high turnover in the STW Coordinator position;
- Student readiness for the demands associated with off-Center experiences; and
- Developing a common understanding of the intent, purpose, and focus of WBL.

Logistics

Centers found that transporting students to and from off-Center worksites was a major challenge. This was the case for both urban and rural Centers, although they faced different constraints. At rural Centers (or Centers located near smaller communities), the issues most often related to the lack of transportation other than that provided by Center staff and the distances to viable off-Center worksites. By contrast, Centers located in or near urban settings were confronted with unreliable public transportation systems or those with schedules that were too limited to accommodate the diversity of students' work schedules. For example, staff at one urban Center indicated that, even when public transportation is available, it could be slow and cumbersome. Students are unable to move quickly enough from the Center to the worksite because it involves circuitous routing and transfers for the bus and/or subway.

In either case, then, Centers needed to place budgetary emphasis on providing transportation for students, usually by making vans available for this purpose. This gave rise to associated maintenance, staff, and fuel costs, which can be considerable. For example, one Center estimated that transportation costs averaged approximately $100 dollars per student per month; another Center estimated annual student transportation costs of $15,000. Many Centers have indicated that these costs are coming out of the general operating budget, at the expense of other Center needs. Even at this, transportation is not nearly adequate.

As a consequence, Centers have attempted creative approaches to deal with the issue. One Center is hopeful of utilizing the vanpool operations of a company at which several students are placed, with a qualified student as the driver. They also hope to access state funding to provide assistance for student transportation. Another Center concerned with a poor public transportation system contracted with a cab company to drive students home who worked late. Because of budget constraints however, the Center had to scale back their efforts, which influenced the number of students placed in WBL experiences. At yet another Center, staff have attempted to develop multiple job slots with existing employers, thereby permitting an expansion of WBL sites without adding to the transportation burden. Thus, the STW Coordinator at this Center had originally recruited a residential eldercare site primarily for students in HOT, but expanded this ready resource to include slots for students in several other occupations, such as clerical, maintenance, and food service.

How problematic is the transportation issue? Several Centers felt they could double the number of students at worksites, if only they had adequate transportation. One Center estimated that, with adequate transportation, they could significantly increase their slots for nursing and culinary arts students who routinely work nights or begin a shift at 5:00 a.m. Other Centers simply prohibit students from working late into the evening due to lack of transportation and staff resources. Other Centers noted a concern that transportation difficulties were sending an inadvertent message to students that "it's ok to be late for work."

Other logistical difficulties arose because of the need for staff to collect time sheets and schedule time for communicating with supervisors and addressing students' performance at worksites. These responsibilities placed added pressures on their already over-burdened schedules. Several Centers addressed this problem by having responsibilities for STW activities shared across two or more staff members. For example, the Edison Job Corps Center had two STW Coordinators. One coordinates students in the first phase of the WBL component (job shadowing with a local employer), while the other member of the team coordinates the second WBL phase (a six-week internship with a local employer). This arrangement spreads out the time-consuming and labor-intensive tasks inherent in coordinating the WBL activity, and allows staff the opportunity to focus energies on one particular aspect of the component. Still, each of these staff members has other duties that they must juggle around their new obligation.

Other logistical issues arose due to conflicts between Center schedules and students' work schedules. For example, Centers needed to develop a strategy to provide meals for students who would be off-Center during scheduled meal times. Accommodating residential dormitory schedules was often harder to manage. Institutional practice is normally to close residence halls during regular school hours;

thus, students with irregular work schedules often could not access their rooms to change clothing or refresh once they returned from a worksite. Others needed to get up and out of their dormitory early in the morning, even if they were working late the night before.

An interesting approach to the logistical issues associated with availability to dormitory rooms is occurring at the Gary Job Corps Center. This Center has established a residential dormitory specifically for STW students participating in off-Center WBL activities. This dorm is open 24 hours a day, allowing students to come and go at will. This is particularly helpful, as WBL students have varied work schedules, and several of them work nights. Those with late shifts are allowed to sleep until the 4th period, which starts in the afternoon. An additional benefit to this approach is that employers have a central number for contacting students or the residential manager in the event students do not show up to work. Students also have an extra support environment that reinforces their participation and contributes to successful completion.

Staffing Consistency

One of the most significant challenges to implementing the work-based learning component was the degree of staff turnover in leadership and STW operations. Major transitions due to leadership changes (approximately one third of the model Centers had either no Director or an Interim Director at some point during this two year period) led to a lack of leadership and a lack of a strong vision of what STW is at the management level. At these Centers, regardless of department, Center staff appeared to be unsure of what direction to take and uncertain as to what was required to effectively implement STW.

More disruptive from the standpoint of WBL, almost one-half of the Centers had at least two STW Coordinators during the course of the implementation period. It also appeared that positions were frequently left unfilled for two to three months at a time (this was often due to lack of qualified and interested candidates rather than neglect, although Centers that also had Center Director vacancies were hesitant, and in some instances unable, to hire new coordinators). When the coordinator position was vacant, the relationships the previous coordinator had established with employers often became dormant or deteriorated, the "information central" function that coordinators often assumed (holding STW Committee meetings, planning, communicating skill needs to vocational instructors, etc.) unraveled, visits to sites were less frequent as vocational instructors found it difficult to juggle responsibilities on- and off-Center, and employer recruitment responsibilities waned or had to be assumed by other Center staff. Moreover, STW Coordinators usually were the primary recipients of the bulk of STW professional development activities, such as attending conferences, workshops, and seminars. The knowledge they acquired and skills they developed often left with them when they left the Center. Therefore, there was less opportunity for that new information and knowledge to be passed along to and reinforced with instructional staff, and employers could not benefit from any expertise and insight the Coordinators may have developed.

Student Readiness

Most Centers reported that student readiness for WBL experiences presented obstacles to effective implementation. While this was particularly true at the beginning of the initiative, the issue remained throughout. One Center Manager summed up the point of view at many Centers when he suggested that, although many students had the technical skills to function well at employer sites, they often lacked the work ethic and employability skills to succeed. As a result, some of the participants in the program made a negative impression, effectively "burning bridges" with employers.

While many Centers implemented strategies to address students' poor employability and social skills (e.g., developing sites to specifically focus on these skills, a graduated sequence of worksite sophistication, beginning to reinforce SST throughout the Center, etc.), it is unlikely that this challenge will ever be removed—poor social skills and their manifestation are often among the characteristics that bring young people to Job Corps in the first place. At best, Centers can continue to develop, implement and refine some of the innovative approaches to social skills development, as well as to continue to emphasize employability skills as part of the Job Corps culture.

As another readiness issue, several Centers enrolled large numbers of students with limited English proficiency or learning disabilities. Obviously, these characteristics present very real challenges to training that Job Corps Centers share with other training institutions. Increased use of VST projects and on-Center WBL placements could deal with this challenge effectively, although as previously indicated, this approach has not been used extensively.

Developing a Common Understanding

Many Centers cited weak employer understanding of the intent and purpose of STW in general, and WBL in particular, as a major challenge to implementation. Supervisors often appeared not to understand that WBL had a training focus rather than an emphasis on practice and potential job placement. One Center has begun delaying students' placement at work-based learning sites, because employers were offering students full-time employment opportunities prior to the completion of training. Centers also reported that employers frequently were hesitant to spend the additional time it took to train and evaluate student progress.

Training provided to employers that might overcome these limitations was inconsistent, and in many cases was limited to basic requirements of the activity (e.g., safety, evaluations, time sheets, etc.). We found very little employer training on how to work with and mentor students, reinforce and/or pull learning out of work situations, provide opportunities for reflection, and transfer learning to other situations. Thus, effective strategies incorporated by supervisors were often isolated and intuitive, and did not permeate work-based experiences.

At the Center level, we continued to observe that terminology gave the impression that students were "in STW" only when students were participating in work-based opportunities. This speaks to the misperception of WBL as a stand-alone activity rather than one component of a broad initiative that connects all aspects of learning. Also, in some cases, the Centers' union trade instructors have been hesitant to place students at unpaid union WBL sites because they perceive these placements as taking jobs away from other union members; they also are reluctant to place students at non-union worksites.

VII. CONNECTING SYSTEM COMPONENTS

The school-to-work initiative has as one of its key organizing concepts the idea of bringing closer together the two worlds of school and work, which are normally separate and distinct in the minds of most students and adults.

As an example, many of the key values of educators and employers are distinct from one another. Employers, particularly in an increasingly "post-industrial" or "information-driven" economy, typically hope to find workers who are self-motivated, results-oriented individuals. In many of today's workplaces employers are looking for staff who can collaborate with others on projects, who have the types of communication skills to effectively interact with others in the company and with customers, and who can independently find solutions to problems as they arise. In short, a whole new set of skills, which have been elaborated by the Secretary's Commission on Achieving Necessary Skills (SCANS), are increasingly required at the workplace.

Although many educators are aware of the shifts in the types of skills required at the workplace, they are often caught between conflicting imperatives. This is perhaps as true at Job Corps Centers as at many schools, because a major focus of Job Corps training has traditionally been on basic skills remediation for those students who need it. Many students have not acquired a basic level of skills in subjects such as English and mathematics that they presumably should have acquired within the school system. As a result, they must learn these skills, and usually do so in their academic classes. Although, as we discussed in earlier chapters, there are important innovations and reforms in this teaching, there clearly needs to be more effort taken to introduce work concepts and to contextualize learning in a way that would help students understand the importance of math and English skills for employment. For this reason, at many Job Corps Centers the emphasis is gradually shifting from a focus on basic skills remediation combined with occupationally-specific skills to a more holistic concept of promoting *employability* as a key Job Corps outcome.

Connecting activities are seen as crucial in this effort. This chapter discusses four major areas related to connecting activities. These areas are as follows:

- Strategies to connect worksite and school-based learning.[1]
- Staff development and training.
- Linkages for the post-program period.
- STW stakeholders and their roles.

STRATEGIES TO CONNECT WORKSITE AND SCHOOL-BASED LEARNING

Drawing on STW principles, Centers can connect work and learning in two major ways: by linking academic and vocational skills instruction and school-based and work-based learning. The first of these was discussed in Chapter V, School-Based Learning; in this chapter, we will discuss the second.

The importance of the topic is underscored by the School-to-Work Opportunities Act itself, which emphasizes that STW should provide not only school-based and work-based opportunities, but that these should be inter-connected. It is reflected as well in Job Corps's Characteristics of a Comprehensive STW System, which notes that learning at the worksite should be "coordinated with learning on Center—in vocational shops, academic classrooms, and social skills learning environments."

The importance of linking worksite with school-based learning becomes especially important in light of the expanded role that work-based learning (WBL) is to assume when a Center adopts STW principles. One of the important differences between WBL at Job Corps Centers under STW implementation and the earlier efforts to introduce students to the workplace through work experience was that work experience was designed primarily to provide students with experience on the job. In contrast, WBL positions are explicitly intended, according to DOL's quality criteria, to be learning opportunities. Thus, the focus is not just on practicing existing skills, but in developing new ones. In keeping with this, as was discussed in the previous chapter, WBL often comes earlier in a student's Job Corps career than work experience did. A respondent in the Carrasco TX Center succinctly summarized these differences by noting that, whereas before, employers were expected to be supervisors of well-trained students (who were more advanced in their programs and ready to leave Job Corps), employers have now become instructors of less-trained students. Connectivity occurs when employers consciously seek to build on and reinforce those skills that students learn in the classroom.

---

[1] Technically, the STWOA classifies strategies to connect worksite and school-based learning as a work-based activity, not a connecting activity. However, we discuss it here to draw attention to the fact that efforts to connect learning must take root both in the classroom *and* the worksite.

[2] Other important strategies used to connect learning—namely those approaches to connecting vocational, social skills, and academic learning in the classroom—have been discussed in the earlier chapter on classroom learning.

Based on our site visits, we learned that Training Achievement Records (TARs) serve as an important way in which this connectivity occurs. Although there was considerable variation across sites in the actual use of TARs as a training tool by worksite supervisors, in most cases we found that STW Coordinators were conscientious about discussing the TARs and how worksite supervisors could use them to connect school-based with work-based learning. In the best examples, supervisors understood the competencies being addressed by the TAR, where the student was in his or her training plan, and what competencies the work supervisor was to develop in the student. In these cases, work supervisors coordinated learning closely with vocational instructors and were authorized to "sign-off" on competencies that the student had mastered at the worksite.

Where the coordination was weak, by contrast, work supervisors either were not aware of what TAR competencies the student had yet to master or, worse still, were not familiar with the TAR at all. In a similar vein, one site consistently referred to the existence of written training plans for connecting work and learning, but on closer inspection these "plans" turned out to be standard job descriptions prepared by the employers.

These examples suggest the importance of Job Corps Center staff adequately explaining the TAR system to the work supervisor and being sure that this individual is well qualified for the training role that he or she will be playing. They also make clear that regular contact between work supervisors and Center staff is imperative. Although STW Coordinators clearly can play a constructive role in arranging and monitoring the quality of worksite placements, vocational and academic instructors should also be involved for connectivity to be developed to the fullest.

Demonstrating this point, vocational instructors at some Centers visit worksites on a regular basis. For example, the lead building occupations trade instructor at the Gary Job Corps Center will visit particularly active building sites employing work-based learning students as often as twice a week. Similarly, in Barranquitas PR, vocational instructors generally accompany the STW Coordinator during his visits to employee sites to visit with students in the trades that they teach.

The point of these visits is not only to ensure that training at work sites is connected to what is occurring in the classroom, but, conversely, it is used to modify what occurs in the classroom. For example, vocational instructors at the Fred Acosta Center visit or telephone work sites periodically to speak with work instructors to gain a better understanding of employer needs. Similarly, vocational instructors from Carrasco have profited from these visits to update their curricula. For example, because of the duties that students were being assigned at the worksite, this Center now teaches fiber optics as part of its electronics classes.

What has been missing from the discussion so far is the role that worksites can play in reinforcing academic skills that are being taught in the classroom; indeed, although using the TAR at the worksite can be an effective way of linking work and vocational classroom learning, it is less effective as a device for linking with academic learning. However, here again, by giving academic teachers the opportunity to visit worksites, some Centers, such as Carrasco and Fred Acosta, were able to promote a greater connectivity. By observing the types of basic skills that young people were called on to use while on the job and the ones at which they were deficient, these instructors were able to tailor their classroom-based learning accordingly. Angell took this a step further, by having instructors (academic as well as vocational) engage in job shadows. These visits generally occurred in the early implementation period and have become less common now because of the lack of teacher coverage in the classroom. Nonetheless, the academic instructors that did participate found these experiences to be very useful in understanding the realities of the workplace for their students.

The problem that Angell experienced of covering classes when instructors visited worksites highlights a practical problem that made this strategy for promoting connectivity less common than it otherwise might have been. Although, wherever it occurred, instructors reported that they found it valuable to visit worksites, it was typically quite difficult for Centers to make arrangements to cover the instructors' classes (whether vocational or academic) while they were off-Center. Generally, instructors have a full schedule of classes, and thus cannot slip away very easily or very often. One solution devised by the Flint Center was to hire two full-time substitute teachers. These teachers allowed regular instructors not only to visit worksites regularly, but also to meet with each other to engage in joint planning and curriculum development.

Another consideration in having instructors engage work supervisors regularly is the danger that they will become overburdened. Given their other obligations, there are inevitably practical limits on the extent to which instructional staff can be expected to participate fully in developing connecting relations with employers. This is an issue of particular concern for sites that no longer have a person dedicated full-time as a STW or work-based learning Coordinator.

For example, at one of the Model Centers that had abolished the STW Coordinator position, vocational instructors assumed the responsibility for setting up interviews with employers, monitoring worksites, reviewing the work supervisors' weekly evaluations of students, ensuring that students have adequate transportation to their worksites, and helping students prepare for the job search by reviewing resumes and conducting mock interviews.

Because this Center had just adopted this plan at the time of the second site visit, we are not able to completely evaluate the effectiveness of this approach. However, on the face of it, there are many advantages in having vocational instructors involved so directly in coordinating work-based learning components of STW, because it does promote a greater connectivity between work-based and classroom-based learning. However, there are also some obvious potential drawbacks in having vocational instructors assume so many additional duties.

Overall, then, there appeared to be important advantages in having instructors involved to some degree in the work-based learning components of STW—academic instructors benefited from visits to the worksites to understand the ways in which basic English, math, and social skills relate to the needs of employers, and vocational instructors deepened their understanding of changes in their trades and used visits as an occasion to integrate new teaching methods and materials into their programs. However, the practical problems discussed above prevented instructors at most Centers from visiting worksites more than occasionally, if at all.

STAFF DEVELOPMENT AND TRAINING

One of the most important elements in promoting any new organizational innovation is the need to build staff awareness and capacity. In the case of STW, which is a multifaceted reform, training in ways to smooth the transition from schools to careers is essential. To the extent that these reforms promote a shift from the status quo to what are often very different approaches to learning—both in the classroom and on the job site—Center staff can benefit from a wide variety of staff development and training related to STW.

The emphasis in this chapter is on training that relates to Centers' efforts to promote STW principles and practices. Along these lines, we found that the degree to which Centers emphasize staff development and training varied considerably. However, with some exceptions, capacity-building efforts were generally inadequate for an innovation of the scope and complexity that STW entails.

Although it is difficult to precisely categorize staff development efforts by quality based on our interviews with staff, we estimate that in more than one-third of the Centers staff development in STW was minimal or non-existent, in about one-third of the Centers training was marginal, and in the remaining one-third training was deemed to be effective or very effective.

A simple measure of the inadequacy of staff development related to STW was that, as was discussed in Chapter III, most line staff (and in some cases, managerial staff) at over one-half of the Model Centers have a weak or incomplete vision of STW, such as equating it primarily or solely with work-based learning. At a majority of Centers, many staff did not realize that some of the important changes in teaching (e.g., applied academics, contextualized learning, active vs. passive or rote learning, social skills training, employability skills training, etc.) were related in any way to STW.

The types of training and capacity-building efforts that did occur included regional conferences and workshops, workshops sponsored by local or state STW consortia, and in-house training.[3] These approaches are detailed in the sections below.

Regional Workshops

Regional workshops were the most common off-Center training related to STW. The technical assistance providers, in collaboration with DOL regional offices, arranged these conferences and workshops. Typically Centers would send four or five participants to them, including both management and teaching staff.

These capacity-building efforts were generally useful and well received by the staff that attended. However, they were much more effective if they were accompanied by other capacity-building efforts. If in-house training did not follow these workshops, we could not consider them as adequate, primarily because of the small numbers of people involved.

---

[3] Technical assistance was also provided to all 30 Model Centers through the KRA Corporation as part of DOL's Model Center Technical Assistance Project.

For example, for many of the participants at one regional training on curriculum integration, this was their first exposure to curriculum design. Most respondents felt that this training was very important and well delivered. However, they felt that their Centers would require much greater capacity-building efforts in linking academic and vocational learning than these seminars could provide, if they were to put the principles they learned at the conference into practice.

Other respondents mentioned the importance of having time to develop an action plan for the Center. Again, in the case of the regional training that is described above, several respondents believed that there was not adequate time to prepare such a plan or to elicit feedback on their plans. In the future, they believed, such training should involve less lecturing and more exercises that would be of practical benefit.

Local Partnership and State-Sponsored Workshops

In most cases, Job Corps Centers had developed only casual working relationships with local or state STW partnerships. In a few cases, however, Centers developed excellent relationships with STW networks in local and state areas, many of which have held workshops on various aspects of STW. The fact that these workshops were local made it feasible for a greater number of Job Corps staff to participate than was the case for the regional workshops described above. Moreover, sites that had strong relations with local partnerships also often tended to develop their own in-house training, sometimes with its support.

Although these local- or state-sponsored workshops were primarily designed for STW efforts in public schools, those Job Corps staff who attended found them very helpful. For example, the Inland Empire CA Job Corps Center staff attended one local partnership-sponsored conference for employers. During this workshop, the Center was among the STW pilot programs that made presentations concerning their initiatives and best practices. Throughout the evaluation period, staff from this Center continued to attend STW workshops sponsored by the Riverside County STW partnership.

The Collbran Job Corps Center and the Grand Mesa alternative high school jointly applied for and received a two-year, $60,000 grant from the state of Colorado's STW partnership. This supplemental funding allowed the Center and high school to send six representatives to the state's annual STW conference, among other venues. In addition to helping to fund staff development, funds were also used for transportation costs and curriculum development guides.

As we described in the section above, a few sites were able to hire substitute teachers to free instructional staff to carry out other duties related to STW, including attending training workshops. At the Connecticut Job Corps Center, one of the partners, the Connecticut Department of Labor, provided $5,000 in funds that were earmarked specifically for substitute teachers so that the regular staff could attend training. Although staff had not yet attended any training made possible by this grant at the time of the second-wave site visit, training was expected to begin by the latter half of 1999. Many of the Connecticut vocational staff described themselves as lacking in the background necessary to design curricula, and they were therefore very much looking forward to the upcoming training. In addition to the planned state-sponsored training, some managers and staff had already attended training on STW offered by the local workforce development board.

In-House and other Local Training Efforts

In some instances, STW coordinators or other staff conducted training sessions or workshops introducing key STW concepts to other staff. A number of Centers have offered some form of in-house training in STW, ranging from having the STW coordinator give brief overviews in staff meetings to day-long workshops for staff. One Center in particular, however, has emphasized staff development as it relates to STW as a very high priority.

> In recent years, the Cassadaga Center has greatly improved its performance within the Job Corps performance management system. Along with this, the Center has become known as a leader among Job Corps Centers in various aspects of work-based learning and applied academics. The Center has developed strong internal partnerships for STW that have made this possible. According to one respondent at the Center, there is a growing staff ownership and belief that STW is indeed meeting students' needs. As this person noted, "It is not the STW Coordinator who is making staff do things… In some ways we are all STW Coordinators."
>
> In engineering the turnaround of the Center, respondents pointed to the important role of staff development and training. In recent years this training has been specifically focused on the parallel applied academics and STW initiatives. In-house staff, consultants, and academics from nearby universities have all conducted staff development at the Center. The Center also has an incentive policy, rewarding, for example, staff who have contributed to the development of job shadowing on "Groundhog Day."

Center staff had also intended to train worksite supervisors in new STW approaches. Although they had originally intended to bring employers into the Center for training, this approach proved unfeasible because of the rural nature of the county where the Center is located. Instead, the bulk of training has occurred in a less formal way when the STW Coordinator visits worksites.

Challenges and Strategies for Further Staff Development

Although we have detailed some of the ways in which staff development occurred, clearly there is much more that should have been done to foster understanding and implementation of STW approaches. Most staff felt they needed further professional development and training in order to implement STW better. In particular, growing out of our discussions with staff at the Centers, we have identified several key areas where improvements in training could be made. These are as follows:

- *Training in curriculum development.* The new PRH gives instructors, especially academic instructors, substantially more leeway in designing new curricula than they had previously. However, academic instructors have heretofore been bound fairly tightly by the requirements of the CMI system, and have relied on lesson plans that were highly prescriptive. Accordingly, they are generally unaccustomed to developing curricula on their own and may have little experience or background to do so. Although many of them eagerly embrace their new responsibilities, they will need extensive support and training if they are expected to be successful.
- *Training in teaching methods,* including using active teaching styles and project-based learning. Academic instruction in Job Corps has typically relied heavily on having students work through workbook exercises as a way of building their reading and math skills. Although this approach has certain advantages—it allows for individualized, self-paced instruction and open-entry/open-exit, so that new enrollees can be integrated into existing classes at any time—conformance to STW principles suggests that active learning methods should be used, including relying on project-based learning, team work, and empowering students to take control of their own learning. The Job Corps National Office's efforts to "get teachers from behind the desk" is fully consistent with this logic. However, to be successful in their new role, instructors will need substantial guidance.
- *Training in teamwork skills.* Working across lines, be they departmental or philosophical, requires well-developed teamwork skills. Common goals cannot be imposed from above, but rather require a process of consensus-building. Turf battles continue to divide many of the Job Corps Centers that we visited. In particular, in some Centers "lines in the

> sand" have been drawn between vocational and academic programs. This has caused one Center STW Coordinator who spent considerable time and effort trying to bridge those gaps to give up the battle, concluding that "vocational and academic instructors come from different worlds" and that it would always be that way. Helping instructors bridge this divide is another way that staff development and training can be useful.

Clearly, Job Corps Centers face several barriers to effective staff development, which were pointed out to us again and again. Most obviously, Centers lack the resources and cannot devote the staff time for the staff development that they might find desirable.

As some of the examples we have cited in this section demonstrate, however, these obstacles are not insurmountable. Thus, some Centers have made important strides through collaborating with state and local STW partnerships, by securing outside funding, and by hiring substitute teachers to allow regular teachers to engage in training and joint planning. However, other endemic problems remain.

Along these lines, the high rate of staff turnover that we observed at many Centers stands as a very notable obstacle. This turnover has included changes—and sometimes prolonged vacancies—in positions ranging from the Center Director, to the STW Coordinator, to academic and vocational managers, and to instructors at all experience levels. For example, in some Centers we found innovative teaching strategies emerging spontaneously, with individual instructors—say, an academic instructor and a vocational instructor—taking it upon themselves to develop new lesson plans to integrate learning. Indeed, as we discussed in Chapter V, some of the best examples of applied academics emerged in this way. However, more than a few times we noted that the initiative, however promising it appeared, fizzled when one of the members of the team left the Center to take a position elsewhere.

Similar problems with maintaining initiative emerge when those in key leadership positions depart. As was noted in Chapter IV, the support of Center Directors is instrumental in imparting some sense of urgency to the reforms associated with STW; accordingly, the departure of Directors who supported the initiative invariably proved to be very disruptive. Similarly, one Center has had four STW Coordinators during the short implementation period. Although it may be extreme, this example illustrates the common reality that many Centers have experienced unwelcome and excessive turnover in key staff during the period of our study.

Turnover of this magnitude is disruptive in any event. However, when a Center is trying to coalesce around a new vision of effective pedagogy it can prove extremely damaging. Moreover, when key staff in an initiative leave their jobs, they take with them the knowledge and skills that they have acquired from prior staff development efforts. In one Center, for example, management noted that they invested considerable resources in training their former STW Coordinator only to have her leave the Center after just a short while. Having had this experience, the Center is reluctant to spend more resources on training a new STW Coordinator.

This example highlights the dangers of relying so heavily on a single individual to lead change in an organization. The lesson was not lost on some of the respondents we spoke with. When we asked them what they would do differently in terms of staff development for STW, many staff echoed the thoughts of this staff member in Atlanta: "We would have trained all staff at the Center at the very beginning rather than sending them off piecemeal to various training activities. Everyone is needed to simultaneously launch STW effectively."

Another problem that impedes staff development is the fierce competition that exists within the Job Corps system. Because of the competitive nature of the contracting process, Job Corps Centers are often unwilling to share their best practices with other sites. According to one respondent, this unwillingness to share information across Job Corps Centers extends even to Centers operated by the same contractor. Because peer-to-peer exchanges and the dissemination of promising practices are among the most effective vehicles for implementing change within a system like Job Corps, this competition hinders Centers' ability to learn from each other. There is no doubt that some level of competition in the contracting process can encourage better performance on the part of Center operators. At the same time, DOL needs to balance this by encouraging Centers to share best practices and engage in peer-to-peer teaching.

LINKAGES FOR THE POST-PROGRAM PERIOD

One of the objectives for STW is fostering the transition from school to work or further training for program participants. This section describes five approaches to this effort. First, Centers themselves can facilitate the placement process. Second, organizations affiliated with Job Corps provide an array of support services for the post-program period for Job Corps students. Third, Centers can develop special living situations for students that accommodate both work and study. Fourth, Centers can develop linkages with post-secondary institutions, facilitating college or other post-secondary training for students either during their Job Corps tenure or after graduation. Fifth, Centers can help students to develop a coherent financial plan for the post-program period. These approaches are described below.

Job Placement Services

Job Corps has in place a well-defined network for providing placement assistance to students.[4] To begin with, most students can receive placement assistance from the Job Corps Center that they attend. Beyond this, once they leave the community that the Job Corps Center serves, responsibility is generally transferred to a placement contractor. More than likely this contractor is different from the one operating the Center. Finally, students can receive post-placement assistance from Women in Community Service (WICS) or Joint Action in Community Service (JACS). A representative from one of these two organizations also has an on-site presence at some Centers, who works with students in arranging transition services while the student is still on site.[5] Although reviewing the adequacy of these networks was outside the scope of our study, we can at least conclude that Job Corps devotes substantial attention to placement and post-placement assistance, which are key connecting activities in the STW framework.

Some Centers have taken these efforts further, by expanding their own role in providing services to students for the post-program period. This has included forging strong links with the local One-Stop Center, with its substantial resources for assisting individuals with job search and career direction.[6] In other cases, Job Corps Centers are becoming official One-Stop satellite Centers or are at least developing an on-site infrastructure that mimics the resources and "look and feel" of One-Stop Centers' Resource Rooms. An example is described below

> At the Angell Job Corps Center in Oregon, the person responsible for both STW and placement has been working on converting her office into an

---

[4] See "Chapter VIII: Placement Services," in T. Johnson, M. Gritz, R. Jackson, J. Burghardt, C. Boussy, J. Leonard, and C. Orians, *National Job Corps Study: Report on the Process Analysis.* Report submitted to the U.S. Department of Labor: February, 1999.

[5] The system of using outside placement contractors is undergoing considerable change. Similarly, the role of JACS and WICS coordinators within the Job Corps system is undergoing review and change. Spurred by changes in the system of accountability that places even more importance on outcomes measure, Centers will probably play a much larger role in the placement of their own students.

[6] These changes have been greatly spurred by the passage of the Workforce Investment Act, which mandates that Job Corps Centers establish closer links with One-Stop systems.

in-house "employment office." This effort began early in the grant period when she converted a corner of her small office into a resource area, with books and other publications on making career choices and two computer terminals with links to the Internet. Students were free to come in and use these resources whenever the office was open. Normally, there was also a WICS representative who worked in the office. This position was vacant at the time of the wave-two visit and the Center was in the process of recruiting a replacement. The STW Coordinator described the former WICS representative as an integral part of the STW and placement team, and she is hoping that the new representative, who was scheduled to work at the Center in early 2000, will also be a "team player." The employment office is always a busy place, with students constantly coming to ask questions concerning jobs (both work-based learning and post-program). Students also use the computers in this office to conduct self-directed and assisted job-search activities.

At the time of the wave-two visit, construction was about to begin on a building that would house the Center's new employment office, which will be modeled on a One-Stop Resource Room, with self-service computers and staff-assisted services. This new building will house orientation staff on one side, "exit workplace communications"[7] staff on the other, with the "employment office" housed in a glassed-in area in the center. Because of this design, students will be in proximity to the employment office at various stages of their Job Corps program. This is particularly important, according to Angell staff, because students will be able to see that employment activities are "not just something they do during the last two weeks" of their stay at Job Corps, but rather something that they will be "thinking about from the beginning." Students will have extended-hour access to the building, which will have two new Internet-access computers, which have been purchased with STW funds. Students will be able to use these more spacious surroundings to work on finding jobs as well as writing resumes and cover letters. Angell staff hope that as a result of implementing the new employment office concept—both through architectural design and through its One-Stop approach—the process from admissions and orientation through job placement will be more seamless.

Support Services for the Post-Program Period

At most Job Corps Centers, we spoke with representatives of partnering organizations such as Women in Community Service (WICS) and Joint Action in Community Service (JACS), which have contracts with Job Corps to provide support services for students after graduation. In many cases, there is a representative from one of these organizations who works on at least a part-time basis on Center. In-house placement coordinators also provide vital links to jobs for the post-program period. In several Centers, JACS and WICS representatives worked closely with Center placement and STW staff to ensure a smoother transition for Job Corps graduates. An example is provided below:

---

[7] In many Centers, "Workplace Communications" is replacing World of Work training.

> At Woodstock, the WICS representative is an important internal partner within the placement office where the STW initiative is lodged. The WICS counselor's office is immediately across the corridor from the placement/STW office and the counselor works closely with placement and STW staff to offer transitional services to students. She enjoys having a job where she can make an "emotional investment" in youth. She believes that it is particularly important to share love with the kind of youth that are in Job Corps, because many of these youth lack a nurturing home environment.
>
> The Woodstock WICS counselor recently produced a conference on STW and employability. She invited members of the community relations council, employers, and other persons from the community to judge students on communication skills involving writing, oration, and debate. She also organized a "Career Choices 2000" workshop where employers made presentations and participated in workshops on interviewing skills. Another workshop that she developed, which she called "Finance 2K," teaches the fundamentals of saving and investments. Other workshops she has sponsored review the "do's and don'ts" of resumes and interviews.

Creating Living Situations that Accommodate Work and School

A few Centers have adapted the typical dormitory residential living to better suit the needs of students that are participating in work-based learning activities. At the Gary Center, for example, those participating in work-based learning have a special dormitory and are able to come and go twenty-four hours a day. Another Center has taken this concept a step further, as is detailed below.

> The Trapper Creek Center has designed a new transitional living program designed to simulate apartment dwelling. Students from the construction trades renovated four buildings across the street from the Center's administrative offices to serve as residences for more advanced students. Each of the buildings has two-bedrooms, a kitchen, and a living room, and houses four students. Students living in these houses are paid for their on-Center work at the average entry wage for their trade. They use their earning credits to purchase food from the Job Corps kitchen and pay bills (water, trash, electric, etc.). Students in Business Education maintain accounting records for students in the transitional living program.

Linkages with Post-Secondary Institutions

The STW Opportunities Act recognizes that further education is an important positive outcome for youth programs, and all education and training programs are encouraged to develop job placement opportunities as well as post-secondary education opportunities for youth. Linking programs such as Job Corps with post-secondary institutions is therefore an important connecting strategy. We found that, as of our wave-two visits, Centers are to an ever-increasing extent developing links with community colleges and other institutions of higher education, to provide Job Corps students with options that include dual enrollment and college credit or advanced standing.

As an example of these efforts, students at several Centers participate in Advanced Career Training (ACT). As authorized by the Workforce Investment Act, ACT allows students to extend their stay at the Center to pursue advanced education in selected trades in conjunction with local colleges or other training providers. However, efforts to encourage post-secondary participation have been afoot well before the enactment of WIA, and some sites had thereby come to develop long-standing linkages with multiple colleges. For example, one Center, in Loring ME, had established linkages with four area colleges. Another example is described below.

> The Fred Acosta Center has developed excellent linkages with the Pima Community College for students who are interested in advancing their education. Some Job Corps students participate in a three-week occupational exploration class at the college. In Fall 1999, 22 students (or about 10% of the total number of students at the Center) were scheduled to participate in the college program.
>
> The Center's linkage with Pima Community College has encouraged some Job Corps students to pursue higher education. Many of these students are on a degree track and intend to continue their education after graduation from Job Corps. One successful ACT student from the clerical trade received her AA degree and is now working for a major airline. Another student enrolled in the University of Arizona and intends to major in that school's engineering program.
>
> In addition to providing linkages for advanced education, Fred Acosta's work-based learning program often leads to employment. According to the Center's program manager, the employers participating in the program hire 95% of students who participate in Phase III STW training, which is a transitional three-month off-Center work-based learning program.

Developing Financial and Other Transition Plans

One of the major shifts in Job Corps that has accompanied the implementation of STW has been the emphasis on developing the "soft skills" necessary for students to succeed on the job. Although this has always been stressed to some extent through modules such as Social Skills Training and World of Work, the National Office has mandated that employability skills development be given renewed emphasis and become integrated with all other learning activities. Efforts that Centers have undertaken to promote employability were described in Chapter V.

Some Centers have extended this concept by providing additional skills development as students prepare to exit. For example, the Tongue Point Job Corps Center has made the development of employability skills the central focus of its approach. As part of its efforts along these lines, students at this Center are referred to as "student-employees." All students keep timecards in the same way that employees do, and the student disciplinary system is modeled after the operating corporation's human resource regulations. Most recently, the Center has combined the former academic department with other departments into an "employability skills department" and has introduced the Prosperity Plan, which is described below.

> One of the practices adopted at this Center is a *Prosperity Plan* that was developed by the Center's academic supervisor to replace some of the former World of Work (WoW) exercises. Unlike the WoW training, which was based on checklists and involved filling out job applications, time cards, reading bus schedules, and other functional literacy tasks, the Prosperity Plan is designed to help students think through the realities of life after Job Corps.
>
> The impetus for this change was the Center's sense that Job Corps graduates often have unrealistic expectations about how much they will make and what kinds of lives they will lead after graduation. For example, many believe that they are wasting their time learning how to live with roommates, because they will no longer have to do so after graduating. As part of the Prosperity Plan, instructional staff introduce students to the use of labor market information. As an example, students are asked to find out what entry-level jobs pay in their trades in the geographic area where they plan to work. The Prosperity Plan also has them review different types of taxes and take-home pay and get information on apartment rentals and the cost of food and other living expenses. By going through this process, students can develop a more realistic idea of how to plan and budget after they get their first jobs, while improving their problem-solving skills.

STAKEHOLDERS AND THEIR ROLES

A variety of community stakeholders can provide important STW links for Job Corps Centers. This section discusses the roles that employers and other community partners play in developing and guiding the STW initiative.

Employers

In many of the Job Corps Centers we visited, relations with local employers typically revolved around the role of the employers as providers of work-based learning opportunities for Center students. In contrast to this rather limited role for employers, we visited several Centers that had developed deeper relations with the employer community, in keeping with the role for employers envisioned by WIA.

Along these lines, a number of Centers have developed special partnering relations with employers. For example, Union Bank donated equipment, which is used to train tellers, to the Inland Empire Job Corps Center. Moreover, the bank has offered permanent employment to 80% of the Center's students who have worked with them as work-based learning trainees. At other Centers, including Edison, Trapper Creek, Gadsden, and Connecticut, the Vocational Advisory Councils, or, as they are known under WIA, Industry Councils have made substantial contributions to Centers in a number of ways.

At the Trapper Creek Center, the Vocational Advisory Council is active in supporting work-based learning and reviewing vocational curricula. Employer partners are particularly committed to maintaining and strengthening the WBL component. At one of their meetings that we observed in 1998, for example, members of the council advocated for a driver for work-based learning students. In a 1999 meeting, members successfully persuaded the Center to make accommodations so that some students could work full eight-hour shifts as part of their work-based learning experiences.

At the Gadsden Center, employer participation on the STW Committee and Vocational Advisory Council helps students gain entrée into a number of fields, especially construction. This employer participation has led to what Center respondents describe as more genuine partnerships, and staff believed that the deepening of relations with employers constituted the greatest change at the Center in the time between our wave-one and wave-two site visits. Similarly, at around the time of the second-wave site visit, employers who participate in the Industry Advisory Council at the Connecticut

Center agreed to meet more regularly and established a scheduled meeting every six weeks, rather than two times a year as had previously been the case.

Another Center that has been particularly successful in bringing employers into core Center activities is the Edison Center, whose case is described below.

> The Industry Council at the Edison Center has been very active in expanding the role of employers in STW. As a result, the Center has been very successful with its outreach program, which seeks to bring in large national businesses as partners. Between the time of our first- and second-wave site visits, two new employer partners began providing training on Center.
>
> One of these, AAMCO Transmission, established an on-site training program that teaches the Center's automotive students the necessary skills to become entry-level installers at any one of the company's 700 locations in the United States. The second, American Telephone and Telegraph (ATT), established a lab and has provided an instructor who teaches students to build and repair computers. The existing computer lab was originally designed for other purposes and was being renovated during the first site visit. In addition to establishing dynamic relations with these national employer partners, the Center has also established a mentorship program in which industry representatives come on Center to share their knowledge with staff and students.

At several Centers, such as Fred Acosta, Loring, Woodstock, Hubert Humphrey, and Oconaluftee, employers also participate in a number of on-site activities. As one example, the Fred Acosta Center hosts "meet-your-neighbors" breakfasts and invites area employers to the Center on a regular basis. This has helped improve the image of the Center and its students in the community. In a similar vein, several other sites hold monthly luncheons for employers.

Several Centers have held events designed to assist students find jobs, including by participating in mock interviews and career days. At the Oconaluftee Center, for example, fourteen employers attended a career day organized by students. Similarly, students at the Hubert Humphrey Center planned and organized a successful job fair over a four-month period. Another Center, Woodstock, has also seen significant improvements with employers, as we describe below.

> At the beginning of the STW initiative for the Woodstock Center, there was a real shortage of employers wanting to participate in providing work-based learning opportunities. Now an ongoing relationship has been created with employers who are described by Center staff as "crying for help" in

> filling jobs. As a result, it is now more common that employers contact the Center, rather than vice-versa.
>
> One of the best practices pioneered by this Center is that all employers must visit the Center to speak with staff before students participate with them in work-based learning programs. In addition, employers also come on-Center for "Job Readiness" Days to do mock interviews and participate in student seminars on job readiness as well. Many employers also visit the Center on "Career Days" to conduct recruiting. In large part, the success of bringing employers to the Center is due to the exceptional dedication of STW and placement staff and their willingness to actively engage employers.

Clearly, this level of engagement requires a large time investment on the part of Center staff, suggesting again the commitment of resources that effective STW implementation will require.

Non-Employer Stakeholders

In addition to employer stakeholders, respondents indicated the roles that some other off-Center partners have played. In some cases, representatives from DOL regional offices have greatly encouraged the development of the STW initiative. For example, representatives from the Excelsior Springs Center said that they had benefited from the assistance of the Kansas City Regional Office, whose staff have helped the Center forge community and employer linkages. Similarly, respondents at the Dayton and Hubert Humphrey Centers expressed a high regard for the DOL Regional STW Coordinator. This individual communicates with the Centers' STW Coordinators regularly, visits the Centers, and provides hands-on and practical technical assistance, as well as written teaching materials on a regular basis.

STW Coordinators at some sites also made conscious efforts to expand their community linkages beyond employers. For example, during the first year of STW implementation at the Angell Job Corps Center, the STW Coordinator focused on developing employer linkages. After building what she believed was an adequate employer base, she focused her efforts during the second year of implementation on developing community linkages. Largely as a result of these efforts, the Center has developed excellent community linkages with the school district, the community college, the JTPA service delivery area, and the local One-Stop Center.

VIII. EVOLUTION AND SUSTAINABILITY

This chapter explores the evolution and sustainability of STW efforts at the Job Corps Model Centers. First, we reflect upon the changes we have seen at the Model Centers—in terms of new staffing patterns, new activities, new structures for learning, and new partnerships that have been forged—as a result of the STW initiative. We then explore the extent to which these changes were sustained over the two-year period of this study. We highlight critical ways in which the STW initiative evolved at the Model Centers, as well as some of the setbacks the Centers encountered. Second, we discuss the ways in which the Model Centers hope to see their STW initiative evolve and develop in the future.

CHANGES IN SUPPORT OF STW

Over the two years of this study, we observed a variety of changes at the 30 Job Corps Model Centers. Specifically, we observed changes in the following areas:

- *New staffing patterns*, including creating a new position for a "STW Coordinator."
- *New activities*, such as work-based learning activities and applied academics.
- *New structures for learning*, such as modifications to the delivery of academic and vocational instruction.
- *New partnerships*, including external and internal partnerships.

It should be noted that many of the changes we observed at the Model Centers may have occurred not strictly because of the STW initiative, but perhaps as a result of other major Job Corps initiatives that emphasize certain aspects related to STW. In particular, the following initiatives or changes in national Job Corps policy have helped spark changes at the 30 Model Centers that are consistent with STW themes:

- *The new PRH.* The Revised Job Corps Policy and Requirements Handbook (PRH) gives Centers significantly greater latitude to develop curriculum and design new structures for student learning. During our site visits, staff members often commented that the new PRH "gives us much more flexibility to try new things," including developing new curricula.
- *Curriculum Development Initiative.* Job Corps Centers have been encouraged to diminish their reliance on a computer-managed instruction (CMI) system for academic instruction and engage in more group-

oriented teaching methods. To help Centers develop adequate alternatives to the CMI, DOL has sponsored regional training sessions on curriculum development at which participants received extensive information and resources. A DOL-sponsored website serves the same purpose (see www.jctrc.org).

- *The Workforce Investment Act.* WIA requires Job Corps Centers to work with One-Stop Career Centers and participate in local Youth Councils. The Act also requires Job Corps Centers to establish a Business and Community Liaison position, responsible for outreach to employers and other community partners, and it authorizes Advanced Career Training and post-placement services to graduates.
- *New Social Skills Training Curriculum.* The Social Skills Training (SST) curriculum has been revised, and most Centers have involved a broader array of staff members in teaching or facilitating SST.

Thus, in addition to the special funds and technical assistance that Model Centers received to support integration of STW principles, the initiatives and policy changes described above have also served as a catalyst to promote STW efforts. Next, we discuss the changes we observed at the STW Model Centers as a consequence.

New Staffing Patterns

Virtually all of the STW Model Centers launched their STW initiative by moving quickly to hire a STW Coordinator. As we discussed earlier in Chapter IV, this was consistent with DOL's grant announcement requesting STW Concept Papers, which states that 30 Model Centers will be selected "to receive 2-year funding for a full-time STW staff person and, where available, technical support from a national contractor." Typically, the STW Coordinator was responsible for overseeing the work-based learning component of the STW initiative—recruiting employers to provide WBL opportunities, monitoring student participation in WBL activities, and coordinating the necessary paperwork and transportation requirements.

When we returned to the Model Centers during the second year of our study period, a majority of the Centers—24 of 30—continued to have a single staff person serving as the STW Coordinator. However, half of the Model Centers—15 of 30—experienced turnover in staff responsible for the STW initiative. At a few Centers, the position of STW Coordinator had been vacant for several months before a replacement was hired. This high degree of turnover in STW staffing was accompanied by substantial turnover in other leadership positions as well, including vocational and academic managers and Center Directors. This circumstance often significantly hampered a Center's ability to fully develop major components of STW.

Despite the high degree of turnover in staffing for the STW initiative, most of the Model Centers (24 of 30), continued to dedicate a single staff position to serve as STW Coordinator at the time of our second site visit. Approximately one-half of these Centers indicated that the Coordinator had become a permanent position that had been incorporated into the Center's budget. They adopted several strategies for doing so. Several of the Model Centers that had a pre-existing Work Experience Program (WEP) replaced the position of WEP Coordinator with the position of STW Coordinator. About one-third of the Model Centers were able to support the position by having the STW Coordinator assume other duties. Thus, in some Centers the STW Coordinator was also serving as the Business and Community Liaison (BCL), the ACT Coordinator, the Center Safety Officer, the Equal Employment Officer, or the Placement Liaison, or various combinations of these.

Most of the remaining Model Centers still had a STW Coordinator at the time of the second site visit, but were not yet certain whether they could continue the position indefinitely. Thus, at one Center, administrators indicated the STW Coordinator position was funded largely because other positions at the Center were vacant. At another Center, the Center Director emphasized that, although they intend to continue to support the STW initiative, they "cannot promise it will continue at the same levels" now that the special STW funding has ceased. Further, about one-third of the Model Centers experienced turnover in the position of Center Director during our two-year study period, and a few Centers were without a permanent Center Director at the time of our second site visit. At these Centers, there was usually a higher degree of uncertainty around the future of the STW initiative and the position of STW Coordinator.

Rather than having a single STW Coordinator, six of the Model Centers provided leadership for STW by having responsibilities for STW activities shared across two or more staff members. These staffing arrangements are described below.

- *Responsibilities for WBL shared among a group of staff.* The Fred Acosta Job Corps Center moved the STW initiative from the Vocations department to the Placement department, and simultaneously shifted responsibility for coordinating WBL from a single STW Coordinator to four Placement/STW Specialists. Similarly, the Denison Job Corps Center also had a single STW Coordinator initially, but has transferred responsibilities for coordinating WBL activities to the vocational instructors. At both of these Centers, the shift in staff responsibilities was made in an effort to sustain the STW initiative. Similarly, the Woodstock Job Corps Center has established four "ed-tech" clusters, which combine academic, vocational, counseling, and placement staff in a cluster. The placement specialist assigned to a cluster is responsible for coordinating student participation in WBL activities. The Edison Job Corps Center had two STW Coordinators at the time of our second site visit. One staff person coordinates Phase I students in their WBL component (job shadowing with a local employer, which may last up to two weeks), while the other STW Coordinator coordinates Phase II WBL (a six-week internship with a local employer).

- *Separate staff responsible for work-based and classroom-based activities.* A couple of Model Centers have given one staff person responsibility for coordinating work-based activities and another staff person responsibility for developing classroom-based activities. At the Connecticut Job Corps Center, for example, the Business and Community Liaison is responsible for cultivating external linkages related to STW, such as recruiting employers to provide WBL slots. A new staff person, the "Academic and Vocational Supervisor," will handle internal classroom aspects of STW and will report to the Manager for Academic and Vocational Training. Similarly, when the original STW Coordinator left the Tongue Point Job Corps Center, the Center created a new position, the "WBL Specialist," who focuses exclusively on coordinating student participation in WBL activities. The Center's new Vocational Manager will take the lead on developing more systematic efforts to integrate academic and vocational instruction.

In addition to hiring a STW Coordinator, some of the Model Centers hired other staff members, either permanently or temporarily, to assist with various aspects of the STW initiative. At the Flint Job Corps Center, for example, two full-time substitute teachers have been hired to allow time for regular instructors to visit local employers to identify potential WBL sites. The Inland Empire Job Corps Center hired a Curriculum Development Specialist to help modify the training curriculum to enhance integration of academic, vocational and employability skills.[1] Very commonly, Centers also hired drivers to help transport students to WBL work-sites. As we discuss elsewhere in this report, the logistical and financial issues associated with transporting students to WBL sites often represented a significant challenge for the Model Centers.

In summary, most of the Model Centers continued to have a STW Coordinator at the time of our second site visit and about one-third of them indicated that this would be a permanent position, incorporated into the Center's budget. Other Centers sustained staff support for STW by spreading responsibilities across a group of staff—either by having them share responsibilities for coordinating WBL or by identifying different staff members responsible for work-based learning and classroom-based learning activities. In most cases, these new staffing arrangements were made shortly before our second site visit. Thus, it is too early to draw conclusions regarding whether one type of staffing arrangement is more successful than another.

---

[1] Also, some Centers have asked various staff members to serve on committees charged with designing or overseeing certain aspects of STW, such as applied academics. These committees, and their role in sustaining the STW initiative, are discussed below in the section on "new internal partnerships."

New Activities

The STW initiative contributed to the creation of a range of new activities at the 30 Model Centers. Most significantly, Centers established the following new activities:

- *Work-based learning activities.*
- *Applied academics activities*, such as modules or classes focused on connecting academic and vocational instruction.
- *Activities emphasizing employability skills or independent living skills*, such as new classes or special events.

Work-based Learning Activities. As we discussed in Chapter IV, STW System Building, virtually all of the Model Centers began their STW initiative with a strong focus on providing work-based learning. Most commonly, Centers developed linkages with local employers to provide WBL internships for students, which might last for a few weeks or even a few months. Many Centers also placed greater numbers of students in unpaid work-based learning positions at the Job Corps Center and some Centers provided job shadow opportunities for students as well. These arrangements were discussed in Chapter VI.

When we returned to the Model Centers for a second-round of site visits, the vast majority of the Centers—28 of 30—continued to offer work-based learning activities at the same level or had expanded their WBL component. Most of these Centers had taken steps to modify their WBL component during the second year of the STW initiative. For example, several Centers had established linkages with a larger number of employers by the second year, often as a result of assistance from a broad group of Job Corps staff, and therefore were able to place more students in off-Center WBL internships. Also, at several Centers, site visitors observed much more support for WBL at the wave-two visits, as compared with our initial visit. Instructors had become more supportive of having students participate in WBL and often helped recruit employers to provide WBL slots.

Some of the Model Centers modified the WBL component in response to problems or challenges they encountered during the first year. A few Centers experienced problems with employers that "hired away" students that had been placed in a WBL internship, before the student graduated from Job Corps. These Centers generally responded to this issue by waiting to place students in WBL internships with employers until they completed their academic requirements and attained "level A" completion in their vocational TAR. Also, a couple of the Model Centers stressed that during the second year of the STW initiative they devoted more effort to ensure that employers offered high-quality WBL internships. At the Woodstock Job Corps Center, for example, employers visit the Center before a student begins their WBL internship. This enables the employer to meet with the prospective student-employee, and it also offers the employer an opportunity to meet with the vocational instructor and placement specialist to review the student's TAR and discuss specific skills that are required for the WBL internship. In this way, the WBL internship is structured to help the student develop specific skills.

In addition to the modifications described above, approximately one-third of the Model Centers expanded or restructured the WBL component during the second year of the STW initiative. These Job Corps Centers offer an array of different WBL activities, generally referred to as different "phases of WBL" or different "phases of STW." For example, two of the Model Centers—Batesville and Oconaluftee—have established linkages with nonprofit organizations to provide unpaid WBL internships that emphasize general employability skills. Typically, students would participate in an unpaid WBL internship with a nonprofit organization as their first WBL activity, and then later during their tenure at the Center, they would be placed in a paid internship with a local employer. Similarly, the Atlanta Job Corps Center seeks to place students in a variety of different job shadow experiences as an effort to expose students to a range of occupations within an industry, and also places students in WBL internships with local employers. The Collbran Job Corps Center has established four different phases of WBL, which include field trips to employers during orientation, job shadow during the student's first 90 days on Center, a WBL internship with a local employer, and a home-based internship.

In summary, virtually all of the Model Centers were able to sustain the WBL component of their STW initiative during the course of the two-year study period. These WBL activities enabled a greater number of students to participate in work-based activities related to their vocational instruction. Moreover, approximately one-third of the Centers expanded the WBL component during the second year. Only a couple of the Model Centers were not able to sustain a WBL component. These Centers experienced turnover in the position of STW Coordinator, which significantly hampered the development of the WBL component as well as other aspects of the STW initiative. At one Center, for example, the position of STW Coordinator remained vacant for several months and eventually the WBL component virtually disappeared.

Applied Academics Activities. During the course of our two-year study period, approximately two-thirds of the 30 Model Centers made an effort to integrate academic and vocational instruction through applied academics activities. These applied academics activities took a variety of different forms. The Roswell Job Corps Center, for example, has added three new modules to the basic math class. At the Collbran Job Corps Center, the high school math instructor has developed final exams that are geared toward the different vocations offered at the Center (the local school district operates an alternative high school on the grounds of the Collbran Job Corps Center). Two of the Model Centers—Angell and Denison—have created separate classes devoted to applied academics. Also, at the Gary Job Corps Center—one of the largest Centers—there are three "applied academics instructors" who focus on math, English and teamwork skills. The math and English applied academics instructors typically visit the vocational classrooms periodically and teach two-hour modules.

Several of the Model Centers experienced difficulty implementing or sustaining their applied academics efforts. Indeed, despite the examples described above, at most of the Model Centers only a small number of instructors, perhaps just one or two, were working to integrate academic and vocational instruction. Often, applied academics was happenstance, occurring on occasion as a result of select motivated instructors, rather than being systematically woven throughout Job Corps training. By having only a few instructors involved in applied academics efforts, staff turnover threatens the sustainability of these efforts. Indeed, at least two of the Model Centers were affected by this issue. At these Centers, two instructors—an academic and a vocational instructor—had been working to develop applied academics modules, but when one of the instructors left the Center, the effort was halted.

Another issue that threatens the sustainability of applied academics activities is the perception that these activities represent "extra" or "add-on" efforts, above and beyond the traditional Job Corps training. This was a common perception. This view generally arose in response to the way in which applied academics had been implemented or portrayed at the Job Corps Centers. For example, at Centers that created new classes or added new applied activities modules to existing classes, instructors or managers often believed that applied academics would only lengthen the amount of time a student would spend in academic or vocational training, which they felt would ultimately negatively affect the Center's performance targets. In fact, the very notion of "extra" classes casts integrated curriculum in the light of an add-on, or something separate from what should go on normally.

Despite these challenges and others, several of the Model Centers indicated that one of their primary future goals for the STW initiative was to significantly enhance the integration of academic and vocational instruction at their Center. Many of the Model Centers stated that integrating academic and vocational learning was the most challenging aspect of STW. Also, they identified a strong need for further training opportunities, particularly for instructors, around curriculum development, teamwork, and contextual learning.

Employability Skills or Life Skills Activities. In keeping with guidelines issued by DOL, all Centers provide instruction in social skills and world-of-work skills, often using curricula provided by the National Office. Additionally, about one-third of the 30 Model Centers developed new activities or classes designed to help students develop stronger general employability skills. For example, the Connecticut Job Corps Center designed a "Professional Development" class that has three different phases. Employability skills are emphasized during orientation and the Occupational Exploration Program (OEP), as phase one of the class. Phase two, which usually occurs after a student has been on Center for 90 to 105 days, includes a WBL activity as well as a classroom component on resume preparation, interview skills and communication skills. Phase three is associated with exit and focuses on placement-related activities. At the Excelsior Springs Job Corps Center, OEP has been expanded from two to three weeks and now includes a week-long focus on employability skills. The Woodstock Job Corps Center brings employers on-Center for "Job Readiness Days" to conduct mock interviews with students and to offer seminars on job readiness skills.

A few of the Model Centers also implemented new activities designed to promote independent living skills. At the Tongue Point Job Corps Center, an academic instructor works with students to help them develop a "prosperity plan." Students are introduced to labor market information using computers in order to determine the average entry-level wages in their trade in the location they plan to seek employment. Students also calculate taxes and take-home pay and obtain information about apartment rental rates and the cost of food and other living expenses. The exercise is therefore designed to help students think through some of the decisions they will face upon leaving Job Corps. Trapper Creek had a similar objective when the Center established a "Transitional Living Program," which places about sixteen advanced students in small, separate housing units on the Job Corps Center campus. Designed to simulate apartment dwelling, four students live together in a two-bedroom unit with a kitchen and living room. Students receive a mock paycheck for the time spent in vocational training (their salary is the average entry-level wage in their trade). Students living in these quarters must "pay bills" and must also "pay" for the food they receive from the Center. Students in the Business Occupations Trade maintain the accounting books for the Transitional Living Program.

In summary, several of the Model Centers stressed the importance of providing more opportunities to help students develop stronger general employability skills and independent living skills. Most of the activities described above were first implemented during the second year of the study period.

New Structures for Learning

The above section described new activities that were added to the Centers' menu of services. However, almost half of the Model Centers created new structures for learning at the Job Corps Center or were in the midst of restructuring a certain aspect of their training, such as the academic system. For example, several Centers modified their delivery of vocational, academic, or social skills training. These changes related to different aspects of STW, such as integrating classroom and work-based learning or providing more opportunities for youth to develop SCANS skills. These modifications took a variety of different forms, as we discuss below.

Modifications to Vocational Instruction. A couple of the Model Centers made changes in the delivery of some of the vocational instruction. In some cases, vocational instructors had modified the vocational "classroom" to more closely resemble a work site. At the Collbran Job Corps Center, for example, a Business Technology instructor operates her classroom as "Rise and Shine Temporary Services," which provides administrative support to the Center. The Kittrell Job Corps Center has created a unique structure called "Adopt a Trade" to help expose students to more aspects of their particular vocational area. A variety of different staff members at the Job Corps Center, including administrative, health, and maintenance staff, work with a small group of students in a trade related to the staff member's job (e.g. clerical, finance, health careers, BAM). These groups meet on a regular basis to learn about skills required for different jobs and to go on field trips together. Thus, the "Adopt a Trade" groups provide an avenue for students to learn more about their vocation and they also provide students with another mentor at the Job Corps Center.

Modifications to Academic Instruction. Almost one-third of the Model Centers indicated they had recently modified the delivery of academic instruction or were preparing to do so. Most commonly, Academic Managers indicated that the Center was working to provide more group-oriented learning or active teaching, rather than always having students work individually on workbook exercises. Academic instructors sometimes disagreed as to whether this represented a positive or negative change. At several Centers, Academic Managers or other staff told us that some teachers prefer the old system (i.e., the workbook approach), while others are excited about these changes and look forward to having curriculum development responsibilities and "getting out from behind the desk."

In addition to changing the style of classroom instruction, a few Centers modified the structure of their academic system. The Connecticut Job Corps Center has created a new academic system, organized by ability level and subject matter, along the lines of a typical high school. This modification had occurred shortly before our second site visit, and thus it was too early to learn whether this would promote greater integration with the vocational instruction or greater opportunities for project-based learning. Similarly, the Atlanta Job Corps Center has recently restructured GED instruction so that it is now organized around specific subject areas. Each GED instructor is assigned two different subjects.

Creating 'Ed-Tech' Clusters. The Woodstock Job Corps Center has modified the delivery of training by creating four "ed-tech" clusters—one business/retail cluster, two construction clusters, and a health occupations training cluster. Each cluster includes vocational instructors, academic instructors, counseling staff, and a placement/stw specialist. A couple of the other Model Centers indicated they were planning to create similar 'ed-tech' clusters in the near future, with the hope that it would facilitate the integration of academic and vocational learning.

Modifying the Social Skills Training. We noted above that some Centers had modified the curricula for delivering social skills training. Others have modified the delivery of its instructional methods to engage a broader array of Job Corps staff members involved in teaching SST. At some of the Model Centers, including Trapper Creek, Hubert Humphrey and the Philadelphia Job Corps Centers, academic and vocational instructors are now involved in teaching SST modules. At the Tongue Point Job Corps Center, SST is taught in the vocational classes, rather than as a separate subject, to encourage students to recognize the relevance of SST to their trade. The Excelsior Springs Job Corps Center has created "focus groups," which replace SST classes. Staff from all across the Job Corps Center, including instructors and administrative staff, are assigned to meet in a "focus group" with a small group of students in a particular dorm. Several staff members at the Center believe that this new structure for teaching SST has helped improve communication across staff from different departments.

Creating Computer Rooms or Career Resource Rooms. Three of the Model Centers have created new computer rooms or Career Center Resource Rooms. The Edison Job Corps Center functions as a satellite One-Stop Career Center and has established a career Resource Room equipped with six computers. Similarly, the Dayton Job Corps Center is becoming an affiliate One-Stop Career Center, and has already established an on-Center Resource Room with several computers. Finally, the Tongue Point Job Corps Center has created an "Eagle Room," which contains about fifteen Internet-linked computers. This room was established to help ensure that all students develop basic computer skills. Students use these computers to work on their "prosperity plan," described above in the section on "new activities."

New Partnerships

As a result of the STW initiative, the Model Centers entered into new partnerships, both externally with community partners and internally among staff members at the Job Corps Center. In this section we describe the nature of these new partnerships.

External Partnerships. One of the most significant ways in which the STW initiative had an impact is that it helped encourage the Model Centers to forge new partnerships with a range of community agencies and institutions. Most common were new partnerships with employers, to provide work-based learning opportunities for students. However, several Model Centers developed new linkages with other types of community partners as well, as we discuss below.

- *Employers.* All 30 of the Model Centers have cultivated new partnerships with employers. Although some of the Model Centers had pre-existing

Work Experience or Leisure-time Employment Programs, as a result of the STW initiative all of the Model Centers now have linkages with a broader range of employers that provide WBL opportunities for students related to their trade. At a few of the Model Centers, employers are also involved in reviewing Job Corps curriculum, either informally or as part of an active Industry Council.

- *Local or State STW Partnership.* Five of the Model Centers developed linkages with their local or state STW Partnership. At some Centers, this partnership enabled Job Corps instructors to attend additional training sessions on STW. For example, the Collbran Job Corps Center, along with the local school district, jointly received a grant from the state of Colorado STC Partnership. As a result of this grant, several academic and vocational instructors at the Center have participated in training or conferences sponsored by the state of Colorado. Also, at the Inland Empire Job Corps Center, staff members have attended workshops sponsored by the Riverside STW Partnership. Thus, one of the benefits of forging a partnership with a well-developed local or state STW Consortium is that Job Corps staff members may have access to additional professional development opportunities.
- *One Stop Career Centers/WIA Partners.* About one-fourth of the Model Centers have established a strong linkage with a local One Stop Career Center or have been actively involved in local WIA planning efforts. As we discussed in the previous section of this chapter, a few of the Model Centers have created Career Resource Rooms on-Center or function as a satellite One Stop Career Center, open to the public. Also, the Woodstock Job Corps Center has a strong linkage with a local One-Stop Center to help identify potential WBL sites. Moreover, some Centers, including Trapper Creek and Angell Job Corps Centers, have been actively involved in local WIA planning efforts and have staff members who will serve on the local WIB or Youth Council.
- *Local Education Institutions.* A few of the Model Centers developed new partnerships with local education institutions during the course of the study period. For example, a couple of Centers developed agreements with the local school district that enabled Job Corps students to obtain a high school diploma while studying at the Center. In addition, some of the Model Centers developed new agreements with post-secondary institutions to provide advanced career training opportunities for their students.

Internal Partnerships. Earlier in this report, in Chapter IV, we described that garnering Center-wide support for STW was a significant challenge for many Centers during initial implementation. During the second year of our study, many of the Centers made progress in galvanizing a strong internal partnership, particularly around the work-based learning component of the STW initiative. For example, many of the Model

Centers enjoy a strong partnership between STW staff and vocational instructors to support the WBL component. Similarly, at those Centers with placement staff located on-Center, STW is often closely linked with placement activities. More generally, at several of the Model Centers, STW Coordinators commented that they enjoy much more support for STW, particularly from vocational instructors, who have become increasingly supportive of WBL as they observe the benefits for students.

And yet, despite this progress, most of the Model Centers continue to struggle to create a solid internal partnership, engaging a diverse group of staff members to support STW. Several Centers indicated that the academic department in particular is not clear what role they are expected to play in support of STW. As we have described elsewhere in this report, work-based learning activities are frequently viewed as the real centerpiece of the STW initiative.

In the interim report for this study, we indicated that the most common strategy Model Centers employed to engage staff in the STW initiative was to establish a formal structure, such as a STW committee. In general, these committees were charged with overseeing either the WBL component or the SBL component of the STW initiative. At the time of our first site visits, about one-third of the Model Centers had established some type of STW committee. By the time of our second site visit, however, about half of those Centers (five Centers) had disbanded their STW committee. At one of these Centers, the STW committee dealt mostly with logistics around WBL and was viewed as no longer necessary. At another Center, a new Center Director disbanded the STW steering committee, which had been charged with general oversight of the initiative. In a few cases, the dissolution of the STW committee reflected the fact that the internal partnership had deteriorated from year one to year two of our study.

By contrast, at four of the Model Centers new committees or structures were established to support the STW initiative and were usually charged with working on curriculum development. Thus, in total, approximately one-third of the Model Centers continue to have some type of committee or formal structure (e.g. assigning staff to work in pairs or small teams) to help support various aspects of the STW initiative.

FUTURE PLANS FOR STW

All of the Model Centers indicated to site visitors that the STW initiative would continue at their Center. Top-level administrators at the Centers generally viewed STW as "the wave of the future" and believed that the Center should continue to develop their

STW initiative. For example, the Deputy Center Director at one of the Model Centers told us, "when you look at the Job Corps RESPECT challenges, you can't [meet them] without STW."

At most of the Model Centers, key stakeholders identified ways in which they would like to see the STW initiative evolve and develop further. For example, about half of the Model Centers hoped to enhance or develop the classroom-based learning component of the STW initiative, through activities such as applied academics, project-based learning, or new classes focusing on employability skills or life skills. Several of the Model Centers also planned to modify the work-based learning component of their STW initiative as well. Below we provide some examples of the types of changes that Model Centers would like to make.

Future Plans for Classroom-based Learning

Respondents at many of the Model Centers emphasized to site visitors that, "we are not there yet," with respect to offering classroom-based learning activities consistent with STW principles. Thus, not surprisingly, half of the Model Centers indicated that they intend to develop or expand this aspect of the STW initiative. Most commonly, Centers hoped to enhance the integration of academic and vocational instruction—an issue that was often cited by staff members as "our greatest challenge." These Model Centers had a variety of different strategies for enhancing this aspect of STW. Respondents at one Center indicated that they are seeking better tools or curriculum to help blend academic instruction with vocational training. Another Center hopes to build upon the current efforts of a small number of instructors so that applied academics activities become more systematically incorporated into academic and vocational classes. Another Center plans to offer a technical math class that would devote one hour each day to math skills related to a particular trade. Also, several Centers plan to modify the academic system at the Job Corps Center so that it is less reliant on the CMI and incorporates more teacher-directed, group learning activities.

In addition to these strategies, a few of the Model Centers plan to offer new activities emphasizing employability skills or independent living skills. For example, one Center plans to offer a life skills class that would cover budgeting, insurance, buying and maintaining a car, lease agreements—"all the things you need to know to live on your own," said the Academic Manager at this Center. Another Center is considering expanding its orientation to include a week-long focus on general employability skills, and a couple of other Centers hope to offer more opportunities for all students to develop enhanced computer skills.

Future Plans for Work-based Learning

About one-third of the Model Centers would like to modify or expand WBL opportunities for Job Corps students. Several Centers hoped to recruit additional employers to offer WBL opportunities, particularly for those vocations at the Center that have not yet participated in WBL. In addition, a few of the Model Centers stressed that they hope to improve the quality of WBL activities. For example, one Center hopes to create a developmental sequence for WBL and also hopes to make their WBL internship a stronger training and mentoring experience for students. Similarly, another Center plans to ensure that employers learn about the relevant Training Achievement Record (TAR) for students participating in WBL activities. Finally, four Centers are exploring the possibility of offering WBL opportunities in a student's hometown.

Future Plans for Connecting Activities

Also by way of plans for the future, most of the Model Centers expressed a strong need for additional training opportunities for staff. Thus, several Centers hoped to send staff members, especially academic and vocational instructors, to conferences or workshops on STW. However, Centers were not always certain whether such professional development opportunities would be available and affordable. Other types of connecting activities that a few Centers were exploring include job shadow opportunities for teachers, to help enhance connections between WBL and SBL, and creating a One-Stop Career Center Satellite Resource Room at the Job Corps Center.

In summary, a majority of the Model Centers not only plan to sustain their current efforts, but also intend to further enhance them. And yet, although most of the Centers plan to develop new activities or modify certain aspects of the STW initiative, at several of the Model Centers there was uncertainty around future staffing of the STW initiative, as we discussed earlier in this chapter. Certainly, without sufficient staff and resources, the Model Centers are likely to have difficulty attaining these future goals. In the next chapter we explore additional critical challenges the Centers will face in making further progress.

IX. SUMMARY AND CONCLUSIONS

School-to-Work represents an important and bold initiative that, if carried out as the National Office envisions, can transform the way learning takes place at Job Corps Centers nationwide. However, full-scale implementation of STW principles and practices is certainly a journey rather than an event; the sorts of complex changes being undertaken surely cannot occur overnight, but will of necessity entail a strong and clear focus on goals and objectives, a commitment of adequate resources, a coherent and well developed action plan, and constant fine-tuning of efforts over an extended period of time.

As a group, the Model Centers made important progress along this path and have come about as far as might have been reasonably expected over a two-year period, given the constraints and challenges that STW implementation posed. Overall, almost all Centers that we studied made substantial changes in the way they prepare their students for work or further education or training. However, their efforts were uneven. In general, most Centers made a greater degree of progress in developing work-based learning opportunities for their students and establishing connecting activities, but made substantially less progress in transforming school-based learning.

With respect to work-based learning, about one-quarter of the Model Centers equated it with the traditional work experience program, or spent scant attention recruiting employers and developing quality worksites for students. In these cases, work internships were not seen as the potentially rich learning experiences that they can be. However, the majority of the Centers devoted substantial time to WBL—in fact, STW Coordinators spent most of their efforts developing worksites for students and monitoring their progress in work settings. Although, as might be expected, the quality of these worksites as learning experiences varied, in general youth had ample opportunity to practice, demonstrate, and learn important vocational and employability skills. The rapid expansion of WBL in the Model Centers thus stands as a very notable accomplishment.

Progress in developing integrated school-based learning was less dramatic. About one-quarter of the Centers tried major transformations in the way students learn on-Center, such as by developing applied academics classes, creating teams of vocational and academic instructors that worked together, and transforming the physical structure of buildings or classrooms. These efforts were generally not as successful as their planners had intended, at least not during the period of our study, usually because of unexpected difficulties or challenges to implementation that were encountered. However, these bold moves may yet realize their potential as these Centers' initiatives mature.

In the remaining three-quarters of the Centers, efforts to revamp school-based learning in a way consistent with STW were piecemeal, such as when new workbooks or other materials were introduced as supplementary materials in existing academic classes or individual instructors acting on their own changed their way of teaching. The impediment to further development of school-based learning in these Centers was often their difficulty in understanding the role that classroom instruction played in STW reform.

In this chapter, we highlight challenges to implementation along with promising practices that Centers demonstrated to overcome those challenges. We conclude with a framework for change that allows us to take stock of efforts to date and provides a way of thinking about the work that remains. Ways in which the National Office can support this change are noted as well.

CHALLENGES AND PROMISING PRACTICES

So much of what seems to be wrong with interventions geared towards serving at-risk youth stems from the piecemeal nature of the assistance that is offered. Job Corps clearly cannot be faulted on this score. Each of the Model Centers we studied, and indeed the Job Corps system as a whole, can be praised for its comprehensive approach to youth services. Thus, all Centers offered an array of intensive interventions that include attention to basic skills remediation, the attainment of widely recognized credentials, occupational skills training, employability and social skills development, health services, career counseling, athletics, and a host of ancillary services that, taken as a whole, could truly be expected to cause a major transformation in a young person's life. Moreover, Job Corps demonstrates attention to sound youth development principles, by providing individualized attention, fostering self-confidence, and promoting one-on-one relationships with caring adults.

Building on this solid foundation, the Model Centers were called to modify the traditional delivery of academic and vocational instruction to integrate learning and provide closely linked work-based learning activities. Doing so requires that Centers engage in system building by forging broad partnerships and engaging in staff development and other connecting activities. The effective implementation of STW is therefore a major undertaking, and accordingly, we could not have expected the Model Centers to implement coherent, well-developed STW systems in a short period of time. Nonetheless, many of the Model Centers made substantial progress, and some implemented profound changes that, if not yet fully developed, offer the prospect when they mature of revitalizing the way learning takes place.

In this section we draw on their experiences to highlight the key challenges the STW Model Centers faced in sustaining a dynamic, evolving STW initiative. We also note some of the promising practices that enabled them to overcome those challenges.

Challenge #1: Galvanizing Support Around STW

Because implementing a comprehensive STW initiative represents system-wide reform, it requires strong leadership and sound internal partnerships to bring about. Strong leadership and partnerships, in turn, require that top-level administrative staff at the Job Corps Center share a common vision around STW and believe that its implementation is a priority. Given the hierarchical nature of Job Corps Centers, gaining support of the Center Director as well as other key leaders, such as the Academic and Vocational Managers, is therefore critical to the development of a strong internal partnership and having instructors and other staff members commit their efforts to make substantial changes.

However, developing strong leadership and administrative backing for STW often proved elusive, for several reasons. To begin with, many of the Model Centers experienced *turnover, and sometimes prolonged vacancies, in key administrative positions*. For example, one-third of the Model Centers experienced turnover in the position of Center Director, one-half did so in the position of STW Coordinator, and still others saw turnover in Academic or Vocational Managers. Where this turnover occurred it was very difficult for the Center to maintain an impetus for change.

Second, *motivations for applying for Model Center funding varied*. Many Centers did so because their leaders were strongly committed to the promise that STW offered. However, in other cases, the Center was seeking access to the special funding or the prestige that winning recognition from the National Office entailed. In still other cases, the key personnel who had written the STW proposal either acted with limited input from Center leaders or were no longer at the Center when the awards were made. Thus, simply attaining Model Center status was not always evidence of administrative support and backing.

Third, the Centers' administration, including the Center Director and Vocational Manager or Academic Manager, consisted of diverse individuals with *different ideas and priorities regarding what was important*. Some of them were highly skeptical of the promise of STW or were otherwise resistant to change.

Closely connected with the need for strong leadership is the need for a strong internal partnership supporting the STW initiative. Successful implementation of STW requires active participation from staff within several different departments, such as academics, vocations, administration, counseling, placement, and residential living. Indeed, the National Office's Characteristics of a Comprehensive STW System in Job Corps emphasizes the importance of mobilizing *all* staff behind the STW initiative.

This too proved to be a challenge in many instances. To begin with, the *STW Coordinators were generally not viewed as major power figures* within the Centers, at least not in their own right. Therefore, they found it difficult to be an effective force for change without the strong support from other leaders. Instructors, for example, were not inclined to revamp their curricula, engage in joint planning, etc., unless it was clear to them that doing so was a priority that was fully endorsed by their superiors. In other words, in order to galvanize support from staff within the Center's different departments, the Center Director and other key administrative staff members must take the lead role in developing and promulgating a comprehensive vision of STW for their Center. Yet, as we have discussed, STW Coordinators often proceeded without this strong backing.

In addition to leadership issues, most of the Model Centers encountered a number of additional challenges to forming a strong internal partnership, including the *lack of shared vision of STW and staff members' resistance to change*. At many of the Centers, staff members did not fully understand what STW should entail or share a common vision for its development. In some cases, they were resistant to change or resented being told that they should revamp their established teaching practices.

Concerns about performance also hampered system-building efforts. At some of the Model Centers, staff members were concerned that certain aspects of STW might detract from the Center's ability to meet performance targets. This concern generally arose when instructors were fearful that moving to applied academics would cause students to lose focus on TABE or GED attainments and was an "extra" or "add-on" that would lengthen the amount of time students spend in academics or vocations. For example, at one Center, recent emphasis on meeting performance targets has resulted in greater reliance on the CMI and a shift away from designing new curricula that might incorporate contextual learning or project-based learning.

A high degree of staff turnover also made it difficult to galvanize support. As we noted above, turnover in key leadership positions greatly hampered efforts to maintain momentum toward change. However, turnover of staff in other positions at the Job Corps Center also negatively affected the development of the STW initiative. Several Centers experienced a high degree of turnover among instructors, particularly in the academic department, and consequently, forming a strong internal partnership became virtually impossible. At a few of the Model Centers, for example, almost all of the academic instructors were new to the Job Corps Center by the time of our second site visit. At one such Center, STW Coordinators expressed frustration that, once they developed relationships and networks within the Center, staff left the Center and these connections had to be developed all over again.

Turf issues were also important. Often times there are sharp divisions between different departments within a Job Corps Center, such as the academic and vocational departments. These divisions persist—at some Centers more than others—and often posed challenges to building an internal partnership around STW. In general, the Model Centers that made more progress implementing STW were characterized by a high degree of teamwork and camaraderie among staff from different departments.

Another type of turf issue that surfaced at some of the Model Centers stemmed from the *lack of clear supervisory authority* in some Centers, caused by the fact that instructors sometimes worked for different employers, including unions, national training contractors, local school district staff, and local community colleges. At some Centers, staff members resisted working on joint activities, such as curriculum development or team-teaching, because they believed that these activities were not part of their job responsibilities or were not necessarily endorsed by their respective employers. However, having different employers represented at the Job Corps Center did not necessarily result in a weak internal partnership. In fact, some of the Centers with several different employers also enjoyed a very strong sense of teamwork around STW. What proved critical, again, was strong leadership and having all staff embrace the vision of STW as something that was best for the students.

The ways in which these issues were confronted by the Model Centers and, in some cases, successfully surmounted give rise to a number of "lessons learned" or promising practices. These include:

1. Working aggressively to *promote buy-in from all staff at the outset.* Concerns that staff throughout the organization might have and that prevent them from moving forward with change need to be identified and addressed, whether it be a lack of understanding, conflicting priorities, lack of clear authority structures, and the like. To address these concerns and have staff respond to their requests for assistance, STW Coordinators need to have the support of the Center Director and speak from a position of authority. Strategies that proved helpful included:

    - Having the Center's STW Coordinator report directly to the Center Director. Model Centers that followed this strategy found that this helped establish (but did not guarantee) credibility for the initiative. Similarly, this approach avoided having STW be housed in either a Placement, Vocations, or Academic Department, which created confusion about goals and objectives. For example, when STW was housed in Vocations, academic staff tended to take this as evidence that STW did not concern them. Centers that housed the STW initiative in the central office were more likely to avoid such misperceptions.

    - Establishing committees or planning bodies, so that staff can have input into the initiative and feel a sense of ownership. As they operated at some of the Model Centers we visited, these committees might be charged with providing overall direction (e.g., "STW Steering Committee") or with directing some part of the initiative (e.g., Curriculum Development Committees).

    - Involving students in planning and governance. Students, too, are important stakeholders in the STW initiative and should have the opportunity to voice concerns and provide input. To promote this, one Center established a STW Service Team, made up of students who are elected by their peers. This committee meets monthly and engages in marketing and outreach and proposes changes to the STW design.

    - Producing a STW newsletter, distributed periodically (e.g., monthly) throughout the Center. This newsletter, which is produced by students, provides a way for the STW Coordinator to ensure constant visibility for the STW initiative among administrators, instructors, and students.

2. *Articulating a clear vision* about what STW is. The National Office's Characteristics of a Comprehensive STW System makes clear that STW is about systemic reform that involves all staff and is a comprehensive transformation of the way learning takes place. Yet this understanding was not widely shared among our respondents at the Model Centers. Instead, STW is often equated with WBL or is viewed as an "add-on." As part of the process of

attaining Center-wide buy-in, STW Coordinators need to establish a common vision and engage in dialogue involving *all* staff on an ongoing basis. Strategies adopted by some Centers included:

- Establishing a regular schedule for periodic meetings. One STW Coordinator established weekly luncheons to which all staff were invited. These luncheons were catered by Culinary Arts students and provided an opportunity for the coordinator to explain the vision of STW, answer questions, and address concerns.
- Working with instructors on a one-on-one basis. Some instructors respond better to a more personalized approach. To reach these individuals, some STW Coordinators carved time to meet with each instructor periodically.

3. Having the National Office emphasize that affecting change consistent with *STW is a high priority*. DOL has already expressed its strong support for STW by making it a part of the RESPECT challenges. This message must be continuously reinforced. The strong support from Center Directors was absolutely essential for change to occur, so ensuring that they understand the importance that DOL attaches to this initiative is critical.

Challenge #2: Finding Adequate Resources to Support Change

Another critical challenge the Model Centers faced during the two-year study period, and will continue to face as they work to sustain their STW initiative, concerned a lack of resources to fully support the changes that were being contemplated. One manifestation of this was that most Centers felt severely constrained by a *lack of time for staff* to engage in curriculum development and joint planning or visit worksites. As it stands, all instructors at most Centers have full schedules with little or no "down time." Moreover, all classes must be "covered," to avoid having students be unsupervised. Under this circumstance, it will be a challenge to have curriculum development proceed as it needs to.

Several Centers also emphasized that the *lack of sufficient staff development and training opportunities*—particularly for academic and vocational instructors—posed a substantial barrier to the development of a more comprehensive STW initiative. Even under the best of circumstances, developing new curricula is a complex undertaking that requires special skills. The instructors that we met are surely very capable individuals and many expressed a willingness to try something new that might energize and excite their students. However, they freely admitted that they had little experience in developing curricula and were not sure how to go about integrating the teaching of academic, vocational, and employability skills. Moreover, they generally have not been called on to do so until now, so even thinking about what needs to be done requires a substantial mental adjustment. As the Academic Manager at one Center told us, some instructors are intimidated by the prospect of curriculum development, because "They are used to someone handing them a curriculum that is all spelled out." Emphasizing the importance of staff training, one Center responded to our query about what they wish they had done differently by observing that they "would have trained all staff at the Center at the very beginning, rather than sending them off piecemeal to various training activities. Everyone needs to simultaneously launch STW if it is to be effective."

Virtually all of the Model Centers have also been struggling with *transportation issues*, a concern that is especially acute for Centers located in rural areas. Many of the Centers scrambled to secure adequate transportation to take students to and from WBL sites (referred to by one Center as its "unfunded mandate"). One way they did so was by using a portion of their STW funds to cover transportation expenses (by hiring a part-time driver, for example). However, now that their special funding has ended, Centers will find it challenging to sustain these efforts, or expand them as the extent of work-based learning expands.

Given the Job Corps system's limited funding, a lack of resources is not an issue to which there are easy solutions. Nonetheless, some Centers have developed strategies to overcome this limitation to the fullest practical extent by:

1. *Rearranging Center schedules or staffing.* There is simply no slack in the typical Center's staffing or scheduling to allow instructors "free time" to engage in joint planning and curriculum development, or to visit worksites. Some Centers handle this by:
    - Hiring substitute teachers. One Center hired two substitute teachers that are used to free up some time for regular instructors to plan or meet with each other.
    - Incorporating planning periods explicitly into the schedule. Some Centers have arranged for instructors to have planning periods during the times when students are in SST training or other regular activities. Thus, all instructors can count on a fixed block of "free time" every week. Moreover, this block coincides for almost all instructors, so that joint planning is feasible.
2. *Utilizing a range of staff development opportunities,* and linking them so that they build on each other. Staff training cannot be a one-time event, but should be on-going and cumulative. In support of this, some Centers are:
    - Developing linkages with state or local STW partnerships, to take advantage of nearby training resources and periodic conferences.

- Developing a resource library, with curriculum development guides, sample curricula, and other tools that instructors can use.
- Learning from what other Centers are doing. The Job Corps system is highly competitive and, as a result, Centers are often times reluctant to share their good ideas or best practices with others. However, some Centers have overcome this reluctance and have hosted visits from their peers in other Centers or are otherwise disseminating information about their best practices. This is more likely to occur among Centers that do not directly compete with each other, such as with Centers run by the same operator or among Centers that are run as part of the Civilian Conservation Corps. The National Office needs to encourage such cooperation system-wide.

3. *Developing a range of strategies for providing transportation* for students. Centers lack the funds to hire drivers to cover all their transportation needs as they pertain to WBL. Thus, Centers have made alternative arrangements, including providing students with transportation vouchers or bus passes. In addition, other strategies have included:
    - Arranging for employers to assist in transporting students. For example, one Center arranged for an employer who was providing worksite learning opportunities to several students to lend the use of her company van. Students used this van to transport themselves to and from the Center.
    - Arranging for staff to transport students on their way to or from the Center.
    - Relying on on-Center WBL assignments, to obviate the need for transportation. Many Centers have found that on-Center placements provide excellent learning opportunities but do not impose the burden of transporting students.

Challenge #3: Changing the Way Learning Takes Place in the Classroom

A primary objective of STW is to transform school-based learning by integrating the teaching of a range of skills, including academic, vocation, and employability skills. This is intrinsically difficult, as has already been noted, and is made more so given the limited opportunities for joint staff planning and professional development and training, which were discussed above.

Moreover, in order to make integration at all feasible, academic and vocational instructors will need to work together. The challenge in making this happen is in overcoming the usual *compartmentalization of most Job Corps Centers*, with its strict divisions between vocational and academic instructors. This means that instructors who are not used to working with each other must come to understand how their separate domains can complement each other and respect what others can bring to the table.

An additional challenge is in *changing the content and structure of learning*. The National Office has taken an important step by modifying the Policy and Requirements Handbook to allow Centers more flexibility in classroom instructional methods and materials, including by encouraging departures from the CMI system. Centers must use this new-found freedom to change the way that learning takes place on Center. However, some elements of Job Corps' usual structure make innovative instructional techniques difficult. For example, because of its open-entry/open-exit format, students in any one class are likely to be at greatly varying levels of competencies. This can be a real strength, from the standpoint of encouraging peer-to-peer learning, but makes it more difficult for instructors to design lesson plans that speak to the needs of all students simultaneously. Similarly, the fact that students in any given academic class are typically drawn from multiple trades makes it difficult to utilize contextual learning that appeals to all students equally.

Among the ways that some Centers have overcome these challenges is in:

1. *Breaking down barriers between academic and vocational departments*. Once they began working with each other, instructors from various departments realized that they could complement each other's efforts very nicely, and that they each had something to offer the other. Strategies that Centers adopted to spur this dialogue included building regular planning periods into each instructor's schedule, as was mentioned above with respect to revising schedules and staffing to facilitate change. Additional strategies included:

    - Combining academics and vocations into a single department with one Manager. A few Centers adopted this approach as a way of sending a clear message that all instructors are working together as part of the common cause of doing what is best for the student.

    - Assigning academic teachers to vocations, rather than identifying them by academic subject. A few of the Model Centers abolished the usual distinctions according to which academic instructors carve out specialty areas (e.g., basic skills math, GED, etc.). Instead, academic instructors were assigned to trades and identified themselves as such (e.g., the carpentry academics instructor).

    - Pairing academic and vocational instructors to form teams. In Centers that tried this approach, one academic instructor would be paired with one or two vocational instructors, and sometimes also representatives from counseling or administration. These teams would meet periodically and were charged with developing integrated lesson plans. This is a less extreme approach to facilitating dialogue than the one described above, in that the academic instructors maintain their separate identities defined by their academic subject matter.

- Arranging other times for instructors to get together. One Center hosted a luncheon every Thursday, at which all instructors were invited. The luncheon, which was hosted by Culinary Arts students, was designed to enable instructors to meet with each other on a regular basis. Other Centers arranged for academic instructors to visit vocational classrooms periodically, to see the sorts of academic skills that students were being called on to use in each trade.

- Planning regular opportunities for team teaching. Some Centers arranged for academic and vocational instructors to team-teach on a regular basis. Others hired separate Applied Academics instructors that were charged with teaching applied academics with vocational instructors. These instructors roved through the various vocational classes on a rotating basis and usually focused on math or other academic skills that pertained to each trade.

- Establishing separate courses devoted to applied academics. As noted above, one difficulty with using contextual materials in academics classes is that students in those classes will typically be drawn from a number of separate trades. To obviate this difficulty, a few Centers established separate class periods strictly devoted to applied academics, which were taught by academics instructors. For these periods, students would attend the applied academics class that pertained to their trade.

2. *Developing new ways of teaching students,* including by developing new teaching methods and curricula. Approaches adopted by some Centers included:

    - Hiring staff with special expertise or purchasing off-the-shelf materials. Even with the opportunity for increased dialogue between academic and vocational departments, developing new instructional materials still proved difficult. Some Centers recognized this difficulty and hired curriculum development specialists or used off-the-shelf materials developed by others.

    - Forming special committees charged with curriculum development. Some Centers appointed staff members with a special interest in the topic to a Curriculum Development Committee. Committee members did not always have special expertise in the topic and thus were not themselves necessarily expected to develop new materials. Nonetheless, they could at least articulate the Center's vision and develop a coherent strategy for seeing that the vision came to fruition.

    - Taking full advantage of opportunities to develop project-based learning. In addition to using Vocational Skills Training projects, many Centers were vigilant in identifying other opportunities for students to engage in project-based learning. These included community service projects or other projects on- or off-Center. For example, students at one Center planned, hosted, and organized a Job Jam, a job fair to which employers were invited. At another Center, Cement Masonry students constructed a nature trail in a neighborhood park.

- Transforming vocational classrooms into simulated worksites. To make learning real and emphasize the importance of employability skills, some vocational instructors transformed their classrooms into simulated worksites. Examples included a business trade at one Center whose students became the Rise and Shine Temporary Services.

Challenge #4: Ensuring that Work-based Learning is Content Rich and is Linked to School-based Learning

Almost uniformly, respondents at the Model Centers reported that the expansion of work-based learning as part of the STW initiative represented a major advance. Not only was it felt that students needed and greatly benefited from the first-hand exposure to the work world as part of their preparation for eventual full-time employment, but WBL was recognized for the powerful training tool that it can be if done well. Moreover, students were almost unanimously pleased with their work experience assignments, welcoming the chance to test themselves in the "real world."

Nonetheless, the Model Centers did encounter the usual challenges that have been reported by state and local STW partnerships in their similar efforts. These included the *difficulty of ensuring that good quality training is occurring* at all worksites. Many employers take their responsibility to be providers of training seriously, but not all do; similarly, some employers know what it means to develop a training plan for students, but Centers cannot assume this will be the case. Ensuring that good quality training is occurring will thus entail substantial effort on the Centers' part.

Another challenge was the *difficulty in ensuring that learning that occurred at the worksite was closely linked with what occurred in the classroom*. One way in which WBL under STW differed from traditional WEP was that WBL worksites almost invariably related to the students' trade. To this degree, school-based and work-based learning were almost always linked. Nonetheless, good quality WBL requires something more—some measure of coordination between work supervisors and classroom instructors to be sure that learning is mutually reinforcing and that problems that students are encountering in one setting are being addressed in the other.

Efforts that Model Centers made to address these challenges included:

1. *Monitoring worksites for their quality.* Monitoring worksites for quality turned out to be enormously burdensome, especially as Centers expanded their WBL component to place increasing numbers of students at sometimes far-flung worksites. Two different strategies were devised to handle this responsibility:
    - Assigning one person solely to this task. In many Centers, developing quality worksites and monitoring them for quality became one-person's full-time job, usually the STW Coordinator. (One implication, though, was that some other individual or committee needed to take the lead in other areas of STW development, such as spurring the integration of academic and vocational learning in the classroom).
    - Spreading the responsibility among several staff. Recognizing the substantial burden involved, some Centers decided that the best approach was to spread responsibility for developing and monitoring worksites across multiple staff members, usually vocational instructors.
2. *Developing a variety of worksites geared to different students' needs.* The Centers with high quality WBL recognized that a variety of different worksites were needed to meet the needs of students at different stages of their development. To reflect this, students were rotated across various worksites during their time at the Center, and assigned to the worksite that best met their needs at a particular moment. As it was implemented, this practice meant that Centers were:
    - Developing tiers of WBL assignments to meet students' various needs, depending on their skill levels. For example, at many Centers the first tier might consist of job shadowing or workplace tours for students just starting out, the second tier might consist of brief unpaid work experiences for students who were half-way complete in their trade, and the third tier would consist of more extensive paid work experiences for students nearing completion. Some Centers complemented this sequence with a work experience assignment near the student's home, for those nearing graduation, with the expectation that this might turn into a permanent placement.
    - Developing a variety of worksites, to accommodate different students' needs. Many Centers were slow to utilize on-Center work experience assignments, but came to recognize that such arrangements were very well suited for students who might not yet have mastered the employability skills to make them suitable candidates for placements in the private sector. WBL assignments with non-profit organizations served a similar function, for students who might be slightly more advanced. Placements in the private sector were then reserved for students that had mastered the foundation skills necessary to benefit from this more competitive environment.
3. *Fostering linkages between school-based and work-based learning.* One way in which school-based learning can be better linked to work-based learning is to ensure that instructors and work supervisors have the opportunity to meet

periodically or otherwise coordinate their efforts. Ways that Model Centers did this included:

- Having academic and vocational instructors visit worksites periodically. Although this was often difficult to arrange for the scheduling reasons discussed earlier, where it occurred instructors found it very useful.
- Having employers visit the Center. Different Centers had different structures for making this happen. In some cases, employers visited periodically at job fairs and appreciation luncheons, or to serve as guest speakers on career readiness topics. In one of the best examples, one Center required every employer to come on site to visit the relevant vocational classroom, before any student would be assigned to the employer's worksite.
- Using the Training Achievement Record (TAR) as a common currency. The TAR clearly lays out competencies to be mastered that were decipherable to work supervisors. Vocational instructors or STW Coordinators communicated with work supervisors which competencies an individual student had mastered and which they were still endeavoring to master. Work supervisors then geared the work assignments that students were assigned accordingly. Usually this meant giving students the opportunity to practice existing skills and master new ones. Where this arrangement worked best, work supervisors were given "sign off" authority on the student's TAR.

A FRAMEWORK FOR UNDERSTANDING CHANGE

Despite all of the challenges noted above, many of the Model Centers made considerable progress in galvanizing greater support for STW among staff and implementing new activities or strategies, using some of the promising practices we noted above. And yet, none of the Centers could really be said to have put it all together, by developing a well-functioning, fully integrated STW system. The biggest reason why none did so is that, as we have emphasized, the complex changes that are envisioned simply take time. Thus, undoubtedly many of the Model Centers will continue to make steady progress towards achieving their objectives, if they keep themselves focused on the comprehensive STW vision.

Additionally, the innovative practices that some Centers implemented were sometimes less successful than they might have been because some critical piece of the puzzle was missing. For example, staff might have been given time for joint planning and curriculum development, but maybe were not provided with the training that they needed to make their efforts fully bear fruit. Or an energetic STW Coordinator might have been successful at mobilizing support and resources, but his or her vision of STW might have been flawed from the beginning.

In working with communities committed to system-wide change to improve the quality of education and training delivery structures and services to young people, Brandeis staff have identified several elements central to affecting lasting change and have come to an appreciation that each of these elements must be present to yield "a new way of thinking and a new way of doing." The elements are: Vision, Skills, Incentive, Resources, Action Planning, and Evaluation, any one of which, if missing from the equation, creates an outcome other than sustainable change. This lesson is best illustrated in the diagram below.

	+	SKILLS	+	INCENTIVE	+	RESOURCES	+	ACTION PLAN	+	EVALUATION	=	CONFUSION
VISION	+		+	INCENTIVE	+	RESOURCES	+	ACTION PLAN	+	EVALUATION	=	ANXIETY
VISION	+	SKILLS	+		+	RESOURCES	+	ACTION PLAN	+	EVALUATION	=	GRADUAL CHANGE
VISION	+	SKILLS	+	INCENTIVE	+		+	ACTION PLAN	+	EVALUATION	=	FRUSTRATION
VISION	+	SKILLS	+	INCENTIVE	+	RESOURCES	+		+	EVALUATION	=	FALSE STARTS
VISION	+	SKILLS	+	INCENTIVE	+	RESOURCES	+	ACTION PLAN	+		=	PLATEAU
VISION	+	SKILLS	+	INCENTIVE	+	RESOURCES	+	ACTION PLAN	+	EVALUATION	=	CONTINUOUS IMPROVEMENT & CHANGE

We have already talked about the importance of a clear, consistent vision in contributing to increased progress in implementing the changes required by STW and believe it may be useful to focus on other "influencing factors" as well.

Skills

For purposes of our analysis, we define skills as the knowledge, experience, and degree of competence individuals bring to a task or effort. The foundation for skill development with regard to implementing STW at the Models Centers is an understanding of the principles, concepts, and strategies of the different components that comprise the STW initiative. As individuals develop an awareness and gain insight into new ideas, experience provides the opportunity to translate that understanding to competence through application of effective principles and practices. When one is required to put into practice different strategies and approaches to achieve new goals and objectives, professional development and capacity building become essential prerequisites for change. Without frequent opportunities for staff and worksite supervisors to develop their knowledge and skills, individuals are often apprehensive about attempting the innovative approaches that are required.

We found, in many Centers, inconsistent emphasis on staff training and development opportunities. Initially, Centers took advantage of technical assistance provided through a separate training and technical assistance contract, which was supported by staff from the National Office. Training on STW principles and strategies was provided on-Center to administrative, management, and instructional staff one or two times during early implementation. Absent frequent follow-up or a resident "expert" on-Center, these general orientations and one-time sessions provided, at most, a broad overview of concepts and approaches. The structure and frequency of this type of training precluded the in-depth instruction and coaching needed on an on-going basis to apply what was learned. Moreover, high turnover experienced at many Centers often resulted in few individuals remaining at the Centers who had benefited from the initial technical assistance.

Also, during the early stages of implementation, most Centers sent their STW Coordinators, Vocational Managers, and/or Academic Managers to STW conferences and workshops, who would then be asked to share information with other Center staff. Two issues arise with this approach. First, academic and vocational instructors, who comprise the staff responsible for implementation at the direct service level (such as developing strategies to connect school-based and work-based learning, providing employer orientation and training, integrating academic and vocational instruction, developing project-based learning experiences, etc.), do not receive the benefit of first-hand training. There is a natural degree of dilution that occurs when new information is transferred to others. Key concepts may not be articulated, resulting in gaps in understanding and application potential. Turnover is the second issue; if Coordinators who had attended conferences and workshops left the Center, their knowledge and understanding of STW frequently left with them.

Incentive

Incentive is another critical element in the change process. It is human nature to ask "What's in it for me?" when considering reasons to modify traditional ways of conducting business. If there is no clear incentive to alter strategies and approaches, the change process tends to be slow and progress is at a more gradual rate than anticipated. Directives and policy are frequently not encouragement enough; buy-in to principles and concepts, as well as ownership of the initiative, are essential.

To a certain degree, staff's dedication to helping Job Corps students often served as motivation, particularly when they understood the larger STW vision. Instructors often observed improvement in students' motivation and behaviors when they were actively engaged in learning through STW activities, and the connections between work and learning were made clear. Improved student behaviors and engagement, then, became incentives to institute the different instructional strategies and approaches necessary in a school-to-work framework. Several Centers also made connections between implementing STW and their achievement of placement outcomes, which provided additional incentive to implement and improve STW components. At other Centers, emphasis on providing social skills and employability training increased when staff identified that students who demonstrated competence in these skills were more likely to successfully complete their work-based learning experiences.

Too often, however, the system itself provides disincentive for change. For example, traditional instructional strategies for GED preparation and basic skills development quite typically result in the achievement of certain Job Corps performance measures—GED attainment and increased TABE scores—that Centers were reluctant to jeopardize. Not unreasonably, administrative and instructional staff question the need to change an approach that produces desired results.

The internal systems at individual Centers, or how Centers organized for STW development and implementation, could also influence the incentive for change. In one Center, for instance, representatives of the Academic Department were not included on the Center's student review panel; rather, academic instructors bore the responsibility for monitoring the students while other staff met to conduct student reviews. This exclusion and their perceived relegation to a monitoring role served to distance academic staff further from the mainstream.

Resources

Adequate resources such as time, personnel, facilities/materials, funds, etc., are essential as part of the change process. Absent the resources to support the planning, implementation, and assessment of a new initiative, staff often become frustrated and impatient. Special funding for STW implementation at each Model Center helped ease the fiscal burden; Centers generally targeted a large part of those funds toward hiring a STW Coordinator who focused on arranging work-based learning, and used a good portion of the remainder to fund increased transportation costs incurred as a result of off-Center work-based learning experiences for students.

However, time and personnel appeared to be the resource issues most difficult to contend with throughout implementation. Every Center indicated lack of time as an implementation challenge, most often as it related to carving out time for academic and vocational instructors to develop new curricula, engage in joint planning, and visit worksites. Full and/or conflicting class schedules afforded little opportunity for instructors to meet in order to develop integrated curricula, connect school-based and work-based learning, or plan team-teaching or project-based learning strategies. Following from this, implementing the school-based learning component often became a slow and frustrating process that suffered from lack of planning and cohesiveness. On occasion, individual instructors would work together on their own time to develop curriculum and integrated activities, but it was difficult to sustain these efforts. In an attempt to address the issue, midway through implementation some Centers hired full-time substitute teachers or revamped student schedules to release instructors for planning time and meetings. These remedies appeared to offer some relief.

As mentioned, another resource issue that took its toll on effective implementation was staffing. Many Centers experienced high turnover and/or vacancy rates, affecting staffing patterns and consistency. Turnover and vacancy in leadership positions made it difficult to establish a common vision and plan strategically for implementation, often resulting in the confusion and false starts that occur without a clear vision or action plan.

Action Planning

The next key factor influencing the change process is action planning, or a method of thinking out acts and purposes beforehand. Action planning typically includes identifying specific steps to accomplish a task, arranging them in a logical order, and attaching timelines, responsibilities, and benchmarks to each step. Without a strategic plan, there are often a series of false starts as personnel flail about in attempting to determine direction and order.

We observed that many of the Centers had a general implementation plan, based on the broad goals and objectives included in their Model Center proposal. We found little evidence, however, of more specific strategic planning for implementing the STW initiative at the Models Centers. Thus, while staff had a general sense of what needed to be done, specific action steps—with associated timelines, responsibilities, and benchmarks—had not been articulated, and consequently we saw implementation occur unevenly across components. For example, many Centers initially centered efforts on the work-based learning component. Arranging an adequate number of worksites, developing application procedures for selection into "STW" (often used to describe off-Center work experiences), and monitoring students' assignment at worksites were the primary focus of implementation activities. These concerted efforts did indeed often result in an increased number of students placed off-Center. However, planning for increased student transportation requirements (frequently during non-traditional hours), or time for instructors to visit worksites to connect learning experiences had not been fully thought out. Center staff repeatedly had to re-group to determine how these issues could be addressed, resulting in difficulty in maintaining the progress that had been made.

Evaluation

Finally, evaluation encourages the change process by providing opportunities for reflecting on the effectiveness of implementation efforts, assessing progress toward specific benchmarks and desired outcomes, and modifying strategies when necessary. Evaluation, to be effective, is more than collecting data to determine attainment of numerical goals; it includes a thoughtful and deliberate process to identify strengths and weaknesses in the planned approach to achieve the broader outcomes of the initiative, and then revising strategies and activities when necessary to achieve those outcomes and continuously improve program components. If evaluation is not included as key element, the initiative's growth and improvement will reach a plateau rather than continue to improve.

We mostly observed that Centers collected information relating to the number of students enrolled in STW activities (often synonymous with the work-based learning component) and the outcomes of that participation. Several Centers took note of the connection between students' participation in work-based learning experiences and a higher placement rate with the work-based learning employers. Some Centers were able to provide anecdotal information showing an improvement in students' attitudes toward learning and work behaviors and increased employer interest, but few organized that information into something that could be used to further the initiative's development.

Overall, the change framework we have just described proved to be a useful heuristic tool for evaluating the Model Centers' experiences. We saw from some of the examples of implementation efforts that attention to all these elements fostered positive and progressive change. For example, in situations where more frequent professional development for staff and consistent training to employers were provided, Centers were better able to transform activities into learning-rich experiences for students. When we observed Centers communicating the benefits of STW as a system to enhance student success, reserving and arranging time for instructors to plan and develop curricula, planning thoughtfully and strategically for implementing different STW components, and establishing formal mechanisms for continuous improvement, we also witnessed increased progress in development and implementation.

On the other hand, our observations have indicated that in Centers experiencing limited progress in implementing STW, one or more of these influencing factors was absent. Centers without a clear vision consistent with STW principles that was shared at all levels found that their staff, students, employers, and other partners were confused about what needed to be accomplished and why—and unclear roles and responsibilities do not provide stakeholders with an understanding of "what's in it for me?" In some Centers, the emphasis on outcomes to the exclusion of attempting new ways to achieve those outcomes also provided a disincentive to modify existing practices. Limited resources, such as time to jointly plan and develop curricula and team-teaching strategies, as well as staff turnover and position vacancies, resulted in high levels of frustration and limited progress. Centers that had not planned strategically for implementation by developing systems and a clear sequence for operationalizing STW often witnessed efforts that were disconnected and lacking support across departments. Finally, attempts at implementation that had not included a structured continuous improvement process often could not develop beyond the original programmatic concept.

These observations suggest that Centers would be well-served by focusing efforts on ensuring that:

- A clear and consistent vision, grounded in the goals and intent of School-to-Work, is held by all stakeholders;

- Frequent opportunities are provided for staff and worksite supervisors/mentors to develop the skills and knowledge required to develop integrated curricula, connect skills to the workplace and become effective mentors;
- The incentive to change comes from a clear understanding of the benefits STW can offer for student growth, employer satisfaction and enhanced student achievement; and
- Resources (time, staff consistency, curriculum, etc.) are available to ensure support for the effort required.

Lessons learned also indicate that Centers should develop a strategic implementation plan that sequences development and implementation efforts logically and consistently over time, establishes benchmarks, assigns responsibilities, and identifies realistic and appropriate timelines. Finally, we would suggest that the strategic plan include a formal mechanism for Centers to assess their progress and determine the quality of components against existing standards, and that implementation strategies be modified on that basis to implement steady quality improvements when necessary.

WAYS IN WHICH THE NATIONAL OFFICE MIGHT SUPPORT CHANGE

The National Office of Job Corps has identified five principles of quality performance as part of its RESPECT challenges. These are Retention, Employer involvement, School-to-work principles, Placement quality, and Expanded Community Ties. These principles underscore the strong and continuing importance that the National Office has placed on STW—not only is school-to-work itself one of the principles, but a strong argument can be made that increased retention, employer involvement, placement quality, and community ties are inherent outcomes of a comprehensive and effective STW system.

The previous section has summarized "lessons learned" and has described several promising practices that may assist individual Centers in their ongoing efforts to implement and strengthen STW. Our study also suggests that there are some broader strategies that the National Office may want to consider in order to continue providing a solid foundation of support. These are identified below.

Reinforce the STW vision and message – The implementation experience tells us that greater progress toward developing a STW system of interacting, interrelated, and interdependent elements can be made when there is a common understanding of STW at all levels of a Center's operation. If the National Office intends that STW should permeate the Job Corps approach to learning, the clarity and reinforcement of the STW vision and message will continue to be essential.

Encourage coordination of professional development and training and the development of common knowledge and skill sets around STW – We recognize that, within the Job Corps structure, the primary responsibility for providing professional development and training rests with the Center operators/agencies. Nonetheless, the National Office may want to consider promoting consistency of the content and scope of professional development activities specific to STW. One way in which this could be accomplished is by creating an academy or institute structure that would provide training to a cadre of operator/agency and Job Corps personnel. This group of individuals would supplement existing internal capacity and function as a resource for all Centers, providing uniform and consistent training and/or focused assistance as Centers design, plan, implement, and evaluate their STW efforts. Centers would benefit from a ready and sustainable source of technical assistance that could provide regular and intensive training and support.

Develop frameworks for action planning and evaluation that Centers can use as guides during STW implementation – The Curriculum Development Resource Guide, which was distributed to Centers by the National Office during the evaluation period, appeared to be well-received and was considered a useful tool as Model Centers tackled the challenges associated with developing STW curriculum and instruction and assessment strategies. Our observations during the study suggest that Centers might benefit from similar guides on action planning and evaluation. An action planning guide might be drawn from the experiences of Model Centers, incorporating practices that proved to be effective as well as the lessons derived from "breaking new ground." Comprehensive checklists that outline the priority and sequence of actions necessary to implement various STW components could also serve a useful purpose. A guide to assist Centers in evaluating the effectiveness of STW implementation and its contributions to student success might include advice on how to develop outcome measures, sample tools (surveys, interview guides, etc.), continuous improvement strategies, and approaches to communicate evaluation results.

Implement a "field laboratory" to develop replicable best practice blueprints and to identify strategies to "move to scale" – While several Model Centers made substantial progress in implementing STW at all levels of Center operations, none had fully achieved that goal during the brief implementation period. The large-scale, across-the-board progress that would provide other Centers with tangible strategies for similar implementation was just beginning to materialize. Additionally, few Model Centers have been able to "move to scale"—that is, to implement a system whereby all Center functions are grounded in STW principles and practice, and each student can access the full range of STW activities from the point of his or her enrollment. We have identified in this report a variety of promising STW practices, but cannot say with any certainty that these strategies will stand the test of time or be effective with other personnel at other Centers in different environments. If one of the expectations of the Model Center initiative was to identify specific strategies to assist other Centers, our belief is that additional work remains. To this end, the National Office might consider a continuation of the Model Center approach, although somewhat modified to concentrate technical assistance resources, documentation of effective practice, and outcomes evaluation on a smaller number of Centers. In this manner, a compendium of implementation strategies, program designs for work- and classroom-based learning components, organizing structures, instructional approaches, curricula, lesson plans, and the like could be developed, tested, and refined to inform the broader Job Corps community. Intense technical assistance could be provided to guide Centers through visioning, action planning, and designing and implementing the components to scale, and could coordinate among these Centers to build on strengths, address issues, share resources, etc. As an incentive, and to encourage these Centers to take the risk to embrace innovative strategies in classroom- and work-based learning, consideration may be given to waiving or adjusting performance measures for a specified period. Lessons and best practice could then be translated into a blueprint that would provide a great degree of guidance to other Centers, but allow for local context and continued/increased innovation.

APPENDIX
Project Profiles

PROFILE FOR
GADSDEN JOB CORPS CENTER: GADSDEN, AL

The Gadsden Job Corps Center has encouraged employer investment in the Center's STW effort through a strong Vocational Advisory Committee. Members of the committee have helped the STW Coordinator forge closer relationships with employers by assisting her in gaining entree. Goals for the STW initiative include allowing students to apply what they learn to real work situations; allowing students the opportunity to learn about job possibilities through job shadowing; developing a strong relationship with the business community; assisting students in transitioning from education to employment; and joining together employers, educators, labor organizations and the public and private sectors to work cooperatively with Job Corps. The Center Director is a strong supporter of school-to-work and views it as an all-encompassing agenda for the Center. The benchmark is to have all students enrolled in most of the STW activities offered.

At Gadsden, the STW initiative involves all eight trades offered. Most of the trades are taught by vocational instructors from Gadsden State Community College. The STW effort has primarily emphasized work-based learning (WBL) activities. The WBL component is comprised of three different levels:

- ***Phase One*** – Students rotate weekly between academics and vocational instruction. A unit on safety is completed for the specific trade, and vocational instruction may be classroom- and/or work-based.
- ***Phase Two*** – A student generally has completed one-half of his or her academic goals before entering this phase. Approximately 90 percent of the student's time is spent at a worksite, with the remaining 10 percent in classroom training. This phase typically lasts between 6 and 12 weeks. Approximately one-half of the work-based training experiences are paid positions.
- ***Phase Three*** – Students are in a paid work-based experience and have completed 80 – 90 percent of their TAR.

School-to-work formally begins immediately following intake services. The vocational instructor evaluates the student's readiness for worksite-based training and recommends the student to the School-to-Work Committee, comprised of the student's instructors. Each instructor must sign-off on the recommendation. The vocational instructor takes the lead in determining which of the available worksites is the best match for the student's training needs. Students then meet with the STW Coordinator, who discusses and reviews employer expectations and strategies to comply with worksite requirements.

Despite its WBL focus, the Gadsden Center has defined its three primary STW components as:

- ***Work Based Learning***: job training, work experience (paid or non-paid), workplace mentoring, instruction in workplace competencies, and instruction in all elements of a job;
- ***School Based Learning***: career counseling, selection of a career major, integration of academics and vocational education, evaluation, and secondary/post-secondary articulation; and
- ***Connecting Activities***: matching students with employers, establishing liaisons between education and work, technical assistance to schools, student employees and employers, assistance to integrate school-based and work-based learning, encouraging participation of employers and job placement, continuing education or further assistance.

School-to-Work appears to be a permanent and institutionalized aspect of this Center. The STW Coordinator position is now a regular staff position and function—one staff person serves as the Business and Community Liaison and the STW Coordinator. The Center Director is committed to this initiative and has demonstrated that commitment through a hands-on approach to STW implementation. Both the Center Director and STW Coordinator have helped to organize and lead local consortia to promote school-to-work and training for youth. As a result, the Gadsden Center, as part of a consortium of several counties in and around Gadsden, may receive a State STW grant.

In the short term, GJCC is reviewing ways to provide more transportation for its students, allow staff to visit worksites, and enhance coordination with the instructors provided by the Community College. They also hope to increase their involvement with community projects to teach youth to give back to the community, and further integrate academic and vocational instruction. Other objectives leading to sustainability include developing higher quality career counseling for students at the onset of enrollment and developing a partnership with larger employers moving into the area. The Center also plans on maintaining a leadership role among educators and businesses so that more educational opportunities can be linked for all youth, envisioning sharing training slots with high schools and vocational-technical schools around STW guidelines.

PROFILE FOR
FRED G. ACOSTA JOB CORPS CENTER: TUCSON, AZ

The Fred Acosta Center operates its STW initiative out of the placement department. Originally, the Center appointed a STW Coordinator, but has since reconfigured the duties of the STW Coordinator into other functions relating to job development for work experience and placement. Thus, currently there are four STW/Placement Specialists, with each one taking responsibility for STW, work experience, and placement activities associated with a group of trades. Key stakeholders at the Center believe that this arrangement enables the Center to coordinate interactions with employers, and will also allow the Center to sustain the STW initiative.

The Fred Acosta JCC views STW as providing opportunities not available through the Center's regular work experience program (WEP). For example, in contrast to WEP, STW provides more flexibility with respect to the length and timing of students' internships with employers. Thus, students can participate in STW internships before they have completed their vocational TAR, although the Center avoids placements in STW/WBL internships before students are 80 percent complete with the TAR. Similarly, internships usually are paid and last for three months, substantially longer than is typical for WEP. Additionally, with STW/WBL placements, employers are familiarized with the TARs and can teach competencies associated with each student's trade. STW also enables job shadowing to occur.

STW has not given rise to very many changes with respect to classroom-based instruction thus far. However, the Center is trying to introduce more project-based learning activities, and team teaching has occurred, albeit on a limited basis. For example, instructors from Accounting and Reading collaborated in team-teaching a course designed to teach literacy skills in the context of the trade. However, one of these instructors has since left the Job Corps Center. In another effort to promote applied academics, workbooks teaching academic skills in the context of specific vocations, part of a national curriculum, have also been introduced and are now widely used throughout the Center. Continuing from prior practices, project-based learning is quite widespread in vocational courses. Thus, students in retail trade might create a "mock" business, where they are responsible for seeking out and completing certain projects at the Center. Additionally, trade classrooms are typically configured to resemble a workplace.

As mentioned above, the Fred Acosta JCC intends to sustain their STW efforts by sharing staff responsibilities across four STW/Placement Specialists, rather than having a single STW

Coordinator. With respect to future plans, the Center may extend the WBL internship from three to five months. In addition, the Center hopes to enhance their focus on classroom-based learning activities, possibly through the creation of applied academics lesson plans for each vocation.

PROFILE FOR INLAND EMPIRE JOB CORPS CENTER: SAN BERNARDINO, CA

The Inland Empire had given STW a formal start even before the Model Center funding was received and had already supported the position of STW Specialist on Center, whose duties were to develop work-based learning opportunities for students. With Model Center funding, the Center supported a new position, Curriculum Development Specialist, whose duties included developing new curricula. Subsequently, however, the Career Development Specialist left the Inland Empire and the position was not renewed.

Among the Career Development Specialist's most notable accomplishments, during her time on Center, was establishing a Personal Development Training (PDT) curriculum, which was developed with the aid of an educational consultant. The emphasis on PDT reflects the Center's sense that, among the biggest obstacles that participants face in transitioning to the workforce, is their weak social skills. Phase I of PDT consists of five units: building a positive self-image, communicating effectively, accepting responsibility, setting and achieving goals, and solving problems; Phase II consists of preparing students for their internships (see below), by teaching them about employers' expectations. Since the position of the Career Development Specialist no longer exists, however, the core components of PDT have been incorporated in a variety of different courses at the Center, rather than as a single, stand-alone course.

Beyond these new curriculum efforts, the Center also proceeded with plans to develop applied academics more generally, a task that staff believes has been made much easier because the Job Corps' new Policy and Requirements Handbook (PRH) imparts substantially more flexibility. The efforts to develop applied academics builds on the Center's previous efforts in this area. For example, a consumer math course was developed that attempts to teach math skills through practical problems that students are likely to encounter in life, such as comparative shopping. Inland Empire has also created an Electrical Algebra course as an applied academics effort. The Center has also moved to block scheduling for academic and vocational courses, to make the participants' class day more like the schedule in a typical workplace.

With respect to work-based learning (WBL), Inland Empire initially established three different phases. Phase I, which had been required of all students, consisted of a four to six week work assignment that was available to students who were 25 percent complete in their vocational TAR. Phase II and III internships were intended for those students nearing completion in their trade and who have attained their GED. However, because several employers "hired away" Job Corps students participating in Phase I, the WBL component has been revamped. Currently, students are not placed in a WBL internship until they have completed most of their vocational curriculum (at a minimum, students should be complete with Level A of the TAR).

The STW Coordinator position, which existed at Inland Empire prior to obtaining Model Center status, will continue. The Center plans to sustain current STW efforts and is also working to further enhance the STW initiative. For example, the Center's Curriculum Development Committee continues to exist and meet on a monthly basis. Recently, the committee has been working to develop strategies to increase the emphasis on employability skills in the Job Corps curriculum.

PROFILE FOR
COLLBRAN CIVILIAN CONSERVATION JOB CORPS CENTER:
COLLBRAN, CO

The primary focus of the STW initiative at the Collbran Civilian Conservation Corps Job Corps Center has been to cultivate links with employers to support four different levels of WBL. During *phase one*, students participate in field trips to local employers or attend presentations given by employer representatives at the Job Corps Center. Also, as part of phase one, students participate in a "STW class" taught during the Occupational Exploration Program (OEP). *Phase two* consists of job shadowing opportunities with local employers, which are one to three days in length and almost always relate to a student's trade. These job-shadowing experiences provide students with an opportunity to explore different careers. *Phase three* is a six-week unpaid internship with a local employer to enhance the student's vocational training. In general, students participate in a WBL internship once they have completed a significant portion of their vocational training. At any given time, about ten to twenty students are participating in a phase three WBL internship. Although multiple WBL sites have been developed for most of the Center's vocational offerings, it has been somewhat difficult for Collbran to secure appropriate WBL internship sites for the union trades. However, like many of the other Civilian Conservation Job Corps Centers, students in the construction trades at Collbran engage in project-based learning exercises through VST projects. Only a very small number of students have participated in *phase four* WBL, which is a six-week paid internship in the student's hometown.

The STW initiative, which is located within the Center's Academic Department, is also working to integrate academic and vocational instruction. For example, the high school math instructor has developed final exams that are geared toward the different vocations offered at the Center (the local school district operates an alternative high school on the grounds of the Collbran Job Corps Center). Another high school class offered at Collbran, the "Interdisciplinary Unit" (IDU), also integrates academic and vocational learning. IDU is the final class high school students take before getting their diploma. During the class, students write a 5-10 page research paper that must draw upon at least three different types of research (e.g. the Internet, books and articles, interviews). A few students have conducted another *job shadowing* activity as a means of conducting research for their IDU project. The research paper and oral presentation must incorporate three of the following subjects—English, Science, Social Studies, Math, Life Skills, Technology, or their Vocation.

Collbran has established a formal mechanism to involve students in the governance of the STW initiative. The "STW Service Team," composed of students and staff, includes about ten students representing each of the vocations and the student government. The STW Service Team meets with the STW Coordinator on a monthly basis to provide feedback regarding the types of job shadowing and internship opportunities students are interested in, and to discuss other issues pertaining to STW. Members of the STW Service Team also make announcements about upcoming activities of the STW initiative to their respective vocational classrooms or their dorms.

The Collbran Job Corps Center has leveraged additional funding for their STW initiative through collaboration with the local school district. Together, this partnership applied for and received two grants from the state of Colorado to support staff development and implementation of STW activities. The Collbran Job Corps Center has used most of their additional funds to send instructors and other staff members to training sessions and conferences on STW sponsored by the state of Colorado.

With respect to sustainability, the Collbran Job Corps Center will continue to support the STW initiative. The position of STW Coordinator has been a full-time permanent position since inception of the STW initiative, and has been incorporated into the Center's regular operating budget. Collbran's future plans for the STW initiative include enhanced integration of academic and vocational instruction, and potentially, sending greater numbers of students to participate in a WBL internship in their hometown prior to graduating from Job Corps.

PROFILE FOR
CONNECTICUT JOB CORPS CENTER: NEW HAVEN, CT

The Connecticut Job Corps Center (CJCC) views partnerships as a critical element of school-to-work. The Center Industry Advisory Council, composed of employers and other key stakeholders, provides opportunities for area businesses to offer input on curriculum development, provide customized training programs, and work with students. Another partnership with the Connecticut Department of Labor involves over eight major government agencies in the state, and is designed to support the disabled population served by the CJCC. This partnership continues to evolve and Center administration believes it offers great potential to support Job Corps students.

The STW initiative has developed along several fronts. First, the academic system has recently been revamped around four levels and GED-related subject areas. Students are now grouped by skill-levels, and instructors are assigned to particular subject areas. Level A focuses on basic skills remediation. Students enrolled in Level B typically need to "brush up" on key areas of the GED. At Level C, the student is almost ready to take the GED exam; instruction is concentrated on GED practice tests. Level D students are ready to take the GED. This new format allows teachers to provide instruction at a particular level in a particular subject at any one time, which the Center hopes will encourage more applied academics, project-based learning, joint lesson planning, etc. CJCC has also implemented a Professional Development Course—a three-phase instructional unit that addresses basic workplace competencies at various intervals during a student's enrollment. The first phase is primarily an assessment phase to determine academic placement levels. Phase two occurs between the student's third and fourth months at the Center—usually after the first component of vocational training is completed—and students begin work on job seeking and job keeping skills. The third phase of the course is associated with exit and is more individualized (e.g. updating resumes to include job shadowing and work-based learning experiences, assistance with the job search, etc.).

With respect to WBL activities, CJCC provides structured on-Center work-based activities for its students as well as off-Center WBL experiences with local employers. Many Center departments have requested student workers and the STW Coordinator continually reinforces the importance of creating opportunities for skill development as part of these on-Center WBL placements. During the second year of STW implementation, the Center developed a greater number of off-Center WBL sites and, as a result, more students are now able to participate in WBL activities. Finally, Vocational Skills Training projects are also used to provide opportunities for further development of work readiness skills. In general, staff members have begun to make the paradigm shift and view work-based learning as more focused and learning rich than the traditional work experience.

The view that employability must be incorporated in everything that happens to a student at the Center speaks to the potential for sustainability of the STW initiative. The Center's Business Community Liaison will also serve as the STW Coordinator, on a part-time basis. In addition, the Academic and Vocational Supervisor will handle the internal classroom and on-Center aspects of the STW initiative.

Stronger ties with the local business community have sparked renewed interest in the CJCC, and employers are willing to assist with curriculum development and other enhancements to the work-based component of the STW initiative. Leadership may be the most significant influence relative to sustainability. Although the Center has experienced turnover in key positions, as well as a change in contractors, the current Director is working hard to develop and strengthen partnerships and envisions increased student participation in work-based learning activities. Furthermore, as mentioned above, the Center has created a new structure for academic learning, which will hopefully lead to enhanced classroom-based and connecting activities.

PROFILE FOR
POTOMAC JOB CORPS CENTER:
WASHINGTON D.C.

The Potomac Job Corps Center is striving to reform Center operations around STW principles. Thus, rather than viewing STW as a stand-alone component, Potomac is working toward comprehensive integration of academic, vocational and social skill learning. Instructors, counselors, and placement specialists join all Center staff to impart SCANS skills and reinforce all aspects of employability development. For example, instead of the usual assessment profile, the Center's intake procedures now call for the student to develop a resume.

The locus of the STW initiative at Potomac is within the Placement Department. Potomac has a four-member placement unit that has cultivated linkages with a large variety of employers to support the Center's three-tiered approach to work-based learning (WBL). The *first tier* focuses on the development of work-maturity skills and providing students with opportunities for career exploration, primarily through job shadowing activities. The *second tier* consists of unpaid WBL, linked to the student's vocational training. The *third tier* is paid WBL, which may lead to permanent employment and would therefore help ease the student's transition out of Job Corps. Students begin with tier one WBL soon after enrollment.

Consistent with STW principles, Potomac incorporates project-based learning and applied learning in the academics classes. In some cases, the basic skills curriculum has been adapted to fit different vocational contexts. Also, six teachers representing academics, vocations, and Social Skills Training (SST) have collaborated to develop training that incorporates all three areas.

All Center staff members participate in training on STW principles. Consequently, a wide variety of staff members may play a critical role to support the STW initiative. For example, maintenance or food service staff members may serve as supervisors for students placed in on-campus WBL assignments. Similarly, Center staff members are occasionally asked to give special presentations related to career exploration or SCANS skills (e.g., food service staff may teach sessions on nutrition).

An "AB" schedule is followed where students typically participate in WBL activities part-time while also attending classes. Once academic courses are completed and about 60 percent of the vocational Training Achievement Record (TAR) has been completed, students are eligible for placement in an off-campus WBL assignment to complement their vocational training. The student's schedule is then shaped by the requirements of the WBL work site, with an attempt to match a normal work schedule (and reduce transportation problems) by alternating weeks of either full time work or full time classes.

Other institutional reforms are under consideration that would give teachers more planning time to integrate academic, social skills and vocational instruction so that, ultimately, all students benefit from classroom-based learning activities of the STW initiative. The Potomac JCC is seeking better tools to help design a more integrated curriculum. Also, the Center hopes to improve connections between off-campus WBL activities and academic and vocational instruction at the Center.

PROFILE FOR
ATLANTA JOB CORPS CENTER: ATLANTA, GA

During the two-year STW implementation period, the Atlanta Job Corps Center (AJCC) has focused on increasing work-based learning (WBL) opportunities and linking WBL with school-based learning. Specific goals include the following:

- Enhance training through a series of supporting work-based and school-based learning.
- Strengthen linkages and partnerships, especially with employers.
- Develop supporting strategies to involve as many AJCC students as possible in STW activities.

The STW Coordinator position (now the Business and Community Liaison) is supported by a School-to-Career Specialist. The Business and Community Liaison reports directly to the Center Director, attends senior staff meetings, influences policy, and is firmly in the information loop, as well as actively involved in the Georgia State and the Atlanta-Fulton County Workforce Development Boards. School-to-Career (as it is called at AJCC) continues to be the central theme for Center training opportunities. Through November 1999, 444 AJCC students have participated in worksite learning experiences (primarily job shadowing and three levels of work-based learning). AJCC has over 20 worksites active at any one time, and takes advantage of its own facilities for both job shadowing and skill training.

STW activities include (1) *comprehensive guidance* to focus on knowledge of self and others, career planning, employability, and expectations; (2) *career paths* to identify a career focus, realistic training goals, all aspects of an industry, successful organizations, and WBL frameworks; (3) *STW portfolio* with resume, reference letters, work samples, achievement certificates, the TAR, and a profile documenting classroom, on-the-job, WBL, industry exposure, and SCANS achievements; (4) emphasis on *social skills and SCANS competencies* integrated into both academic and vocational instruction; and (5) *worksite mentoring*.

Instructors or counselors recommend students for STW, subject to the approval of both the Academic Manager and Vocational Manager. AJCC has organized STW into three "Levels." In Level I (usually about four weeks), students split their days evenly between classroom activities (GED or vocational training) and a worksite, where the focus is on work habits and basic TAR skills. Level II usually occurs when GED preparation is nearly complete or the GED test has been taken. Students work up to eight hours a day for half pay, or split the day if they are finishing up their GED or vocational instruction. This may last for several months. Pay rates are minimum wage. Level III may last six weeks and is full time with pay equivalent to an entry-level worker or a worker at comparable levels of responsibility. The TAR, which incorporates SCANS and job search skills, guides the training activity.

In addition to a strong WBL component, AJCC's STW efforts incorporate both interdisciplinary team-teaching and project-based learning. For example, culinary arts students designed and hosted a Black History Month luncheon. Linking culinary arts, planning, math, history, and writing skills, students estimated food amounts; shopped for, prepared, and served the food; conducted research; and prepared, practiced, and presented a short speech. In the case of project-based learning, teachers start with a set of learning objectives and teacher/manager teams then develop a project that will convey those learning objectives. Workplace basics are integrated with basic skill training—instructors focus on one of 13 employability skills each week as the context of academic instruction.

AJCC's main goal continues to be for the entire Center to be driven by school-to-career principles. Center staff members are actively seeking resources to advance and extend the effort, and have been successful at procuring these funds to a certain degree. There are plans to institute an academy approach that will totally integrate academic, social skills and vocational instruction around employability objectives, although it is still in the development stages. There are also plans for getting instructors to worksites more often and to closely tie classroom and work-based learning. The Center's linkages with employers has contributed substantially to the potential for sustainability of the STC initiative. Employers are indoctrinated as partners—not just in the context of WBL, but in all Center activities. Contributing greatly to sustainability, AJCC recently received a planning grant from state STW funds to form a consortium between the Center, the Workforce Development Board and local public schools that will allow Job Corps students to attend local high schools to take courses toward graduation.

PROFILE FOR
DENISON JOB CORPS CENTER: DENISON, IA

One early focus for Denison was to enhance and expand the previous work experience activities into new, work-based learning (WBL) opportunities for students. The WBL slots consist of actual work assignments, either on or off-Center, and are different from the former work experience slots in that: 1) WBL positions always must be related directly to the student's vocation, 2) students must complete one of two levels of proficiency in their vocation prior to becoming eligible for a WBL slot, and 3) the positions allow students to gain competencies associated with their TAR. The two levels of WBL proficiency are:

- For Level 1, students must be 50 percent complete in their trade and able to demonstrate sufficient social skills to hold a position, and
- For Level 2, students must be 80 percent complete in their trade.

For both levels, students must be recommended to participate in WBL by one of their instructors. WBL positions for Level 2 students generally involve more complex tasks, and sometimes offer wages in addition to the experience. Additionally, students can participate in job shadows, spending a few hours up to a day shadowing an actual worker to learn what skills and tasks are necessary for that job. At any one time, approximately 25 students are on WBL and/or job shadowing assignments.

From the beginning of the STW program until May 1999, STW was housed under the employability department, which consisted of orientation, OEP, placement, and STW. Like many other Centers, Denison has experienced staff turnover in the STW Coordinator position. Thus, while the employability department continues to house orientation, OEP, and placement, the STW initiative has been moved to the vocational department, and the vocational manager has become the *de facto* school-to-work coordinator. As a result of this shift, STW looks somewhat different than it did when there was a school-to-work coordinator position. Whereas the STW Coordinator handled many aspects of STW including follow-up and monitoring WBL sites, these responsibilities have now been divided up among the vocational instructors. Thus, the activities that vocational instructors conduct now include the following:

- *Set up interviews* with employers.
- *Ensure that transportation has been arranged* to get the student to the employer site.
- Help students *prepare resumes.*

- Conduct *mock interviews* with prospective WBL students.
- *Ensure that employers conduct weekly (bimonthly for some trades) evaluations.*

Central to Denison's plans for sustaining the STW initiative was shifting responsibilities for STW from a single STW Coordinator to the vocational instructors. The Center has also called upon employers in a variety of different ways to build and sustain certain aspects of the STW initiative. Employers have been involved in developing curricula for vocational instruction. Several employers have met or spoken with vocational instructors to review those skills essential to the workplace that should be taught in the vocational courses. Similarly, employers often host vocational instructors at the worksite, providing the instructors with observations of the skills necessary for their students. As a result, many vocational instructors have developed a good understanding of employer requirements. Vocational instructors are thus able to both tailor their own teaching to incorporate employer feedback, as well as to choose students who are most suitable for WBL activities with various employers.

PROFILE FOR
LORING JOB CORPS CENTER: LIMESTONE, ME

The Loring Job Corps Center (LJCC) was originally established about four years ago and was based upon core school-to-work principles as a "Center of Innovation." Since that time, the Center has experienced staff turnover in key positions, including several Center Directors and an extended vacancy in the Director of Education and Training position, under which the STW initiative is situated. As a result, LJCC has been forced to re-group and has placed many of their STW efforts on hold until the Center can stabilize and develop leadership continuity. Despite these circumstances, many of the core STW staff (primarily the STW Coordinator and the Vocational Department) have a broad view of school-to-work, and understand that STW encompasses much more than work experiences or internships for students.

With respect to partnerships, LJCC has made significant attempts to reach out to community members, organizations, and employers to support STW efforts. The Center has a well-instituted and attended Community Relations luncheon held every month, open to all interested parties in the community. It includes an update on Job Corps activities, including the STW effort and opportunities for community organizations to provide feedback to the Center. In addition, LJCC is developing a linkage with the Maine Department of Education to become an alternative school site so that students can receive high school diplomas. Furthermore, in another partnership effort, the Vocational Manager and two instructors are exploring the possibility of seeking employer input to review Training Achievement Records (TARS) to ensure students have appropriate vocational skills.

The Center is currently focused on improving student performance in academics. Thus, there is a great deal of emphasis on testing, the Computer Managed Instruction (CMI) system, and accountability. Consequently, greater integration of academic and vocational instruction has been delayed until academic instruction and performance can be stabilized. As a result, academic instructors are little involved in STW efforts at the Center.

The Loring Center continues to offer a work-based learning (WBL) component, which includes the following key components:

- STW placements. Students are nominated by their vocational instructor to participate in work-based learning experiences with employers, either locally or in their hometown, for up to six months.

- Work experience. These on-Center work-based learning assignments are usually shorter in duration than STW placements and often involve the business vocational area.
- VST Projects. These are on-Center project-based learning experiences which enhance some aspect of the Center and often involve the Construction trades (e.g., new cement walkways, interior painting, the building of new cold storage buildings).
- Project-based Learning. These include work-related projects that occur off-site and are accomplished as a group.

In all cases, WBL experiences relate to the student's vocational area and begin before the student leaves the Job Corps Center. Further, worksite supervisors are encouraged to provide students with opportunities to complete TAR competencies.

The Loring Job Corps Center fully intends to sustain and further develop the STW initiative once academic performance issues have been addressed. The STW Coordinator has been a consistent presence at the Center, and the new Director of Education and Training appears to be fully committed to STW philosophy and principles. Loring's solid relationships with area employers and its role as active in the community should contribute to continuation of STW practices. Further, staff members' willingness to work together across departments also provides a foundation for the kind of cooperation and coordination necessary for growth and progress around STW principles. However, the Center will need to work hard to build buy-in from staff other than members of the core STW team. Attention to developing a common STW vision, professional development activities for instructors, and formal action planning would greatly contribute to the potential for sustainability.

PROFILE FOR
WOODSTOCK JOB CORPS CENTER: BALTIMORE, MD

The Woodstock Job Corps Center has located its STW initiative within its Placement Department. A primary focus of Woodstock's efforts has been to aggressively develop work-based learning (WBL) opportunities for students, which consist of actual work assignments either on or off Center. In contrast to its previous work experience program, which the WBL component replaces, job assignments associated with the STW program: a) must always relate directly to the students' trade, b) can commence much earlier in the students' stay on Center, and, more recently, c) can provide an opportunity for students to gain competencies associated with the TAR. Further, Woodstock makes a distinction between three levels of WBL assignments, including, at the extremes, Level I placements, which are generally unpaid on-site placements for students who are about 40 percent complete at their trade, and Level III placements, for students who are at least 80 percent complete and consist of off-site and (usually) paid positions. Typically, a student is considered to be participating in the STW program if they have been placed at a WBL job assignment. This is considered to be "an honor, something that the student has to earn." Thus, in addition to having made appropriate progress in his or her trade for the level of the assignment, students who apply for a WBL assignment must demonstrate suitable work attitudes and have demonstrated good conduct while on Center, and their participation must be approved by a STW Panel that assembles for the purpose. At any one time, approximately 25 students are on WBL assignments.

The Woodstock Center encourages the active participation of employers. Before participating in work-based learning, for example, all employers must come to the Center to meet with the student, the STW coordinator, the placement director, and vocational instructors. Employers also participate in "job readiness days." On these days employers come to the Center to conduct mock interviews, and participate in seminars and workshops which are held for the benefit of Woodstock students. Similarly, on "career days" employers make presentations about their companies and interview students for available positions.

As part of their normal classroom learning at Woodstock, students also undertake, in alternating weeks, vocational training associated with their trades and the CMI-driven remedial basic skills and GED instruction. However, to complement this learning, as part of its STW initiative Woodstock has begun developing Applied Academics modules for six of Woodstock's approved trades. In developing these modules, three teams consisting of one academic instructor and two vocational instructors (one from each of two trades) were formed and were charged with developing lesson plans that integrate the teaching of academic skills within the vocations. The number of modules thus far developed by each of the three teams varies from one or two, up to about a half-dozen. Each module is designed to be taught in one or two class periods and will involve the academic instructor going to the vocational classroom to team teach with the vocational instructor. For instance, a module might include measuring lumber as a way of learning about fractions, conducting dialogues to learn effective business communication, and completing paper-and-pencil exercises. They are designed to teach, in a vocational context, problem-solving and thinking skills, as well as basic academic skills.

Longer-term goals for Woodstock's STW system-building included having academic instructors conduct shadowing in the vocational classrooms and more fully implementing project-based learning and the integration of academic and vocational skills instruction. The Center hopes to accomplish this integration through its new Center organization. Under the reorganization which took place in early 2000, the Center created "tech teams," co-locating vocational and academic instructors. Tech team plans also called for including a placement/STW resource person on each of the teams.

PROFILE FOR
FLINT/GENESEE JOB CORPS CENTER: FLINT, MI

The Flint/Genesee Job Corps Center (F/GJCC) is relatively new, beginning operations in October 1997. Typical of any new undertaking, much energy has been expended to address the multiple issues associated with start-up. As a result, STW implementation at F/GJCC has progressed at a slower pace than originally anticipated. However, organizational structure and key personnel are now stabilized and the Center is poised to take advantage of the opportunities offered by STW implementation. The STW Coordinator reports to the Manager of Vocational Education. The Center has hired a new Manager for Education Training, who has experience with STW concepts, curriculum development, and project-based learning.

F/GJCC has established strong working partnerships with United Auto Workers and General Motors. Both have enrolled Job Corps students in technology programs established as a means to train local youth for specific trades in automobile manufacturing. Training is rigorous and standards are high. There is also a partnership with the local One-Stop Center. Job Corps students are helping with renovations to the Center, and F/GJCC will be a presence at the One-Stop beginning Summer 2000.

In general, a student is considered to be participating in the STW initiative if they have been placed in a work based learning (WBL) job assignment. WBL internships are currently developed and monitored by the STW Coordinator and vocational instructors. This is an actual work assignment, associated with the student's trade, that can take place either on-Center or with a local employer. This work assignment can provide an opportunity for students to gain competencies associated with the Training Achievement Record (TAR). Some of the WBL job assignments are paid positions. Typically, a student must have demonstrated strong work-maturity skills and good attitudes and behaviors to be considered for a WBL job assignment.

As part of the students' normal classroom learning at the Job Corps Center, students participate in vocational training and remedial basic skills and GED instruction. Some applied academics and other classroom-based learning activities that promote STW have been developed. Examples of this are described below.

- The Clerical Occupations trade is updating their curriculum to include more applied academics exercises. The vocational instructor has worked with academic instructors to assist with reading and vocabulary as it relates to clerical occupations.

- The math instructor and the painting instructor have worked together to develop and implement team-teaching exercises.
- Structured employability activities are offered on a regular weekly schedule – all instructors provide the same unit from the Social Skills Training curriculum on the same day at the same time. Personnel from various departments within the Center (administration, maintenance, food service, counseling, and the like) assist. This scheduling requires the teacher for whatever class the student is in at the time to incorporate employability skills into regular lesson plans. It also engages individuals from throughout the Center's organizational structure in at least one aspect of the STW effort.

While implementation has been hampered by the dual challenge of starting a new Job Corps Center and initiating a complex STW system, F/GJCC took several significant forward steps toward the end of the planned implementation period. The Center has employed an individual as the Manager for Education Training who is highly respected for his previous work associated with STW. The STW Coordinator position has been incorporated as a regular budgeted position, and the Center has hired two full-time substitute teachers that will enable instructors to meet and plan joint activities and lessons, as well as go into the community to identify work opportunities for their students. Key personnel at the Center appear to share a common STW philosophy, which favors further development of the initiative now that the Center is organized and fully operational.

PROFILE FOR
HUBERT HUMPHREY JOB CORPS CENTER:
ST. PAUL, MN

The Hubert Humphrey Job Corps Center's School-to-Work initiative, which focused primarily on the development of work-based learning opportunities, has gone through several different stages. STW replaced a Work Experience Program (WEP) that had been in place for several years. The WEP program had placed a high priority on placing youth into short-term job placements after they had completed all of their on-Center vocational training. STW shifted the focus away from work experience (WEP) and towards work-based learning, where participants were to be placed into short-term job placements throughout their vocational and academic training at Hubert Humphrey.

At the beginning of the STW initiative, WBL at Hubert Humphrey was defined as having three distinct phases. The first phase was unpaid on-Center work experience. The second phase was unpaid off-Center work experience. The third phase was paid off-Center work experience. Hubert Humphrey JCC, however, had difficulties implementing this model. One challenge they faced was that participants who were in the early stages of Job Corps training were not yet ready to work off-Center. Another major challenge was that few employers were interested in providing direct hands-on training to students. In response to these challenges, staff at Hubert Humphrey simplified the program into two key phases. The first phase is on-Center unpaid WBL, which occurs mid-way through a student's vocational training. The second phase is paid off-Center WBL, which occurs when the student has completed most or even all of his or her vocational Training Achievement Record (TAR). This modification helped to address the key challenges Hubert Humphrey faced by limiting the number of youth working off-Center to those who had nearly completed their training; however, by doing so it also limited the availability and breadth of the program.

In addition to the WBL component of STW, Hubert Humphrey has also worked to integrate vocational and academic instruction. In order to move towards this goal, Hubert Humphrey added a project-based component whereby academic and vocational instructors collaborate together with students on medium to large-scale projects. An example of this type of collaboration was "Job Jam" held in February 1999. A team of students worked with vocational and academic instructors to organize a large catered job fair, at which Job Corps students had the opportunity to participate in mock interviews with employers. Project-based collaboration of this type, however, is fairly rare. Staff turnover and the shortage of teacher preparation time have posed a considerable challenge to these types of long-term projects.

In order to sustain STW, Hubert Humphrey Job Corps Center has permanently funded the STW Coordinator position. Future plans for the initiative include (1) increasing the extent of project-based learning that integrates vocational and academic components, (2) ensuring that all students get the opportunity to participate in on-Center WBL, and (3) creating a case management system to track student progress.

PROFILE FOR
BATESVILLE JOR CORPS CENTER:
BATESVILLE, MISSISSIPPI

The Batesville Job Corps Center has created expanded opportunities for work-based learning (WBL) as part of its STW initiative. Batesville makes a distinction between four different levels of WBL. Level 1 (Service Learning) is placement at a non-profit worksite to allow for the development of general employability skills. Level 2 occurs when students have successfully demonstrated general employability skills and have also completed 30 percent of the vocational Training Achievement Record (TAR). Students can participate in up to 25 hours per week of unpaid WBL at an off-campus worksite. Students alternate between academic and vocational classroom learning and their WBL site, and gradually progress to closely supervised job tasks for a six-week period. Students may also learn, for example, how to operate basic equipment and the rudiments of their job. Level 3 WBL occurs when the student has accomplished 40 to 80 percent of the TAR. Students can spend up to 40 hours per week at the WBL job assignment, and they are paid at half the normal wage for the position. During this phase of WBL, students generally undertake more complicated tasks and work with slightly less supervision. Classroom instruction continues, following an alternating "AB" schedule. As with Level 2 WBL, Level 3 lasts about six weeks. Level 4 WBL usually coincides with the completion of all classroom instruction. Students are considered probationary employees of the worksite, receiving the normal wage for the work performed. This phase continues for about four to six weeks, and ultimately the student may be hired as a permanent employee.

The TAR is the primary mechanism for integrating vocational classroom instruction with work-based learning. Employers have some influence on TAR elements and structure the WBL experience to allow students to further develop TAR competencies. Moreover, the TAR provides worksite supervisors and instructors with a common language.

Students must apply to participate in the WBL opportunities described above. Therefore, STW is considered an "elite" status within the Center. In general, about one-half of the Center's students participate in WBL.

Batesville has also begun to develop classroom-based learning activities that incorporate STW principles. In some cases, instructors have created special projects that combine academic, vocational and social skills. Additionally, the STW Coordinator, based upon employer feedback and other information regarding student interactions with employers, developed a new course curriculum entitled "Workplace Communications," which has replaced the previous World of Work class.

The Center's goal of getting all students involved in STW during their tenure at this rural Center is complicated by transportation issues and costs. Center leadership views the integration of academic and vocational instruction as another key challenge. However, they are confident that employer participation will improve as a result of efforts to develop partnerships with national employers.

The position of STW Coordinator has been institutionalized, replacing the position of Work Experience Coordinator. This change is significant in that it demonstrates a programmatic shift from traditional work experiences to connected, WBL opportunities. The Center now also has an active STW Committee, organized by the Center Director and the Assistant Director, which includes employers. Fiscally, STW is being sustained through the Center's regular budget by reducing staff or costs in other areas.

As a relatively small Center, Batesville staff can easily assess on a daily basis how well STW efforts are working. They continue to nurture the Center-wide reform of student training by creating worksites conducive to general employability training and adjusting academic instruction to support and complement vocational instruction. The resourcefulness of the Center's administration has instituted recreational and enrichment activity days for students, thereby allowing time for academic and vocational instructors to receive training and participate in joint planning activities.

PROFILE FOR
GULFPORT JOB CORPS CENTER: GULFPORT, MS

The Interim Center Director at the Gulfport Job Corps Center has expressed a serious commitment to STW as fundamental to Job Corps philosophy, offering leadership and support to build the entire Center program around STW and incorporating STW into every students' Job Corps experience. Primary responsibility for STW implementation rests with the Vocation Manager, who supervises the School-to-Work Coordinator. The STW Coordinator is also responsible for the college-bound component, ACT. The Center initially established the following goals: "to provide better education, better employment prospects, adult role models, and multiple post-secondary options for all students." To accomplish its goals, the Center is focused on five objectives:

- Foster positive attitudes toward education and the workplace among students;
- Utilize "real world" experiences as valuable sources of learning;
- Encourage the development of appropriate workplace citizenship and cooperation with others;
- Build toward student employment; and
- Utilize community resources to the fullest extent in the training of students.

Components of the STW initiative to which all participants are exposed include orientation, extended career and trade exploration, and applied academics modules. A clear and consistent effort to socialize the students to workplace realities has been undertaken and more social/work readiness is integrated in the overall program. Students are introduced to STW upon entry. Forty percent of the Training Achievement Record (TAR) must be completed before a student is sent to an off-Center work-based learning site.

To support the work-based learning (WBL) component of Gulfport's STW initiative, the Center has developed a sizeable list of community employer partners. These employer partners include: the Housing Department, hospitals and nursing homes, the Cable Company, the Community Action Agency, the State Employment Security Commission, a university, and an Air Force Base. The concentration of public agencies and non-profit work sites may account for the heavy emphasis in work-site recruitment on "no financial cost" as an employer benefit. Vocational areas that have sent students on WBL assignments include data entry, clerical occupations, medical assistants, electrical, plumbing, and carpentry.

The Center has had several leadership changes in both the Center Director and STW Coordinator positions during the course of STW implementation. Sustainability will be determined, in large part, on stabilization of these positions. Should that stabilization occur, the primary focus will be on developing the daily integration of academic and vocational instruction by pairing instructors from each department and developing opportunities to expand the learning at worksites.

STW does appear, however, to be an integral part of the employer community in Gulfport—employers regularly and consistently request student trainees. Students have also embraced the positive financial aspects of STW. They are encouraged to save significant amount of the earnings—a process that is closely monitored – so that they can establish themselves independently upon graduation.

PROFILE FOR
EXCELSIOR SPRINGS JOB CORPS CENTER:
EXCELSIOR SPRINGS, MO

The STW initiative at the Excelsior Springs Job Corps Center has primarily focused on developing a strong work-based learning (WBL) component. Students now have significantly more opportunities to participate in WBL activities than they did under the Center's old Work Experience Program (WEP), which STW replaces. Excelsior Springs makes a distinction between three different levels of WBL. *Phase one* includes job-shadowing activities and work-based learning activities at the Job Corps Center. During *phase two* WBL, students participate in a four-week unpaid internship with a local employer. Before they can participate in a phase two internship, students must have completed the lowest level of their vocational Training Achievement Record (TAR), and they may still be enrolled in academic instruction. *Phase three* WBL is a six-week internship with a local employer. This WBL activity is designed for students that have completed their vocational training and their academic coursework. Ideally students are paid for the phase three internship, although not all employers have been willing to do so. Students must demonstrate suitable social skills and work-maturity skills prior to being placed in a WBL internship with a local employer. Vocational instructors nominate students to participate in a WBL internship, and the STW Coordinator then gathers input from the relevant instructors, counselors, and administrative staff. The STW Coordinator forwards nominations to the Center's senior management team, which makes a final determination as to whether a student should be placed in a WBL activity with a local employer. At any one time, approximately 20-30 students are on WBL job assignments.

Excelsior Springs has also taken initial steps to develop classroom-based learning activities as part of their STW initiative. In an effort to promote connections between academic and vocational instruction, the Academic Department at Excelsior Springs initially allocated one instructor to serve part-time as a "traveling" applied academics instructor. This instructor worked with three of the eight trades to facilitate applied academics lessons in vocational classrooms. After about six months, however, the Center suspended this practice. Instead, all academic and vocational instructors are encouraged to work together to develop applied academics curriculum. One of the GED instructors, for example, has developed a series of math exercises geared toward the different vocations offered at the Center. In addition, in the fall of 1999, Excelsior Springs established a Curriculum Development Committee, charged with developing a more integrated curriculum at the Center.

Excelsior Springs plans to sustain and continue to develop their STW initiative. The STW Coordinator, who previously served as Coordinator of the Work Experience Program, will continue in her capacity as both the STW Coordinator and the Coordinator for Advanced Career Training. Excelsior Springs has identified three key strategies for further development of the STW initiative, primarily related to the classroom-based learning component. First, the Center plans to institute a "Life Skills" class that will cover budgeting, insurance, buying and maintaining a car, public transportation and lease agreements. Second, the Academic Manager would like to create a "Technical Math" class that spends one hour each day focusing on math exercises related to a particular trade. Third, as part of its curriculum development initiative, Excelsior Spring intends to modify the academic system so that it is less reliant on the Computer Managed Instruction (CMI) system.

PROFILE FOR
TRAPPER CREEK CIVILIAN CONSERVATION JOB CORPS CENTER: DARBY, MT

The primary focus of the STW initiative at Trapper Creek Job Corps has been expanding the Center's work-based learning (WBL) activities to include a three-month paid internship with an employer. Prior to being designated a STW Model Center, students from four of the ten trades at Trapper Creek could participate in "On-the-Job Training" (OJT), a work-based learning experience that consists of one or two months of unpaid work-experience related to a student's vocational training. During OJT, students are placed with a local employer or a department within the Job Corps Center. In general, students have completed about half of their vocational training when they participate in OJT.

In addition to OJT work-based learning, which continues to exist and is primarily coordinated by vocational instructors, Trapper Creek has created a new WBL activity—a three-month paid internship with a local employer. Before they can participate in the three-month paid WBL experience, which is usually referred to as a "STW internship," students must generally meet the following criteria: (1) they have earned their GED or high school diploma; (2) they have completed about 80-90 percent of their vocational training; and (3) they must be in good-standing with respect to the Center's behavior system. Vocational instructors nominate students to participate in the three-month WBL internship. Most students placed in STW internships are compensated in the following manner: (1) the first month is unpaid, (2) during month two the employer compensates the student at a rate of half the minimum wage, and (3) during month three students receive the minimum wage. The STW Coordinator, with assistance from vocational instructors, recruits employers to provide paid WBL internships and monitors student participation in these internships.

For those students in the construction trades, it has been much harder to find appropriate work-based learning sites, particularly for the union trades. This is primarily because the Job Corps Center is located in a remote, rural area. However, students in these trades frequently participate in Vocational Skills Training (VST) projects, which provide an opportunity for students to engage in hands-on, project-based learning, often with students from different trades. VST projects at Trapper Creek are generally conducted as a simulated work-site, whereby an advanced student or a vocational instructor serves as the "foreman," overseeing the project and keeping students on task.

Trapper Creek's fire fighting crew, which has existed for several years, was described by many staff members as "the best STW situation" at the Job Corps Center and serves as an excellent example of youth-adult partnership in the Job Corps context. At any given time, about 40 to 60 students participate in the fire fighting squad along with staff members. While participation is required for students in the Natural Resources trade, other students participate on a voluntary basis. Training includes classroom instruction on fire behavior and control, as well as physical fitness training and hands-on, simulated fire control training. The Trapper Creek fire fighting squad is dispatched by the U.S. Forest Service to assist with fire fighting across the western region of the United States. Students are compensated about $9.80 per hour while they are working.

In addition to the work-based learning activities described above, some of the vocational and academic instructors have been working to develop classroom-based activities linking academic and vocational instruction. The GED instructor, for example, has prepared a series of workbooks containing math exercises for each of the different trades offered at the Job Corps Center (e.g. "Math for Welding," etc). In a few instances, academic and vocational instructors have worked together to develop applied academics exercises. The GED instructor and a natural resources instructor, for example, together created several exercises that draw together concepts from mathematics and natural resources.

Trapper Creek intends to sustain their STW initiative. A full-time staff person serves as the STW Coordinator and also has other responsibilities, such as Center safety. This staff person will continue in this capacity. Like many other Centers, one of the biggest challenges Trapper Creek faces in sustaining the STW initiative is securing adequate transportation so that students can participate in off-Center WBL activities. Since the Center is located in a very rural area, some of the WBL sites are located over 30 miles from the Center.

Trapper Creek's future plans for the STW initiative focus on enhancing classroom-based learning activities and connecting activities. In August 1999, the Center established a Curriculum Development Committee, which is composed of academic and vocational instructors, a counselor, the Academic Manager and the STW Coordinator. This committee was formed after a group of staff members attended a DOL conference in San Francisco on curriculum development. The GED instructor, who attended this conference and serves as Chair of the committee, hopes that this effort will result in a more integrated curriculum that incorporates project-based learning and applied academics to a greater degree. Another goal for the STW initiative is to develop a "mini Resource Room" or career Center that would become an affiliate One-Stop Career Center.

PROFILE FOR
EDISON JOB CORPS CENTER: EDISON, NJ

Edison Job Corps Center's (EJCC) primary goal is to provide STW opportunities for all students. To achieve this goal, EJCC efforts have included incorporating principles of STW into the curriculum and developing meaningful community-based opportunities for young people. Emphasis has been placed upon the combination of exacting high standards of performance from students and developing high employer expectations of Job Corps students. The Employability Manager is responsible for the leadership of STW at the Center. Two STW Coordinators, responsible for on-Center and off-Center activities respectively (Phases 1 and 2 of STW), share operational responsibility.

The EJCC STW approach is organized to include two phases. The first phase, mentorship, is usually about two weeks in duration and provides students with an initial introduction to the world of work and either hands-on experience in their vocational choice or an opportunity for career exploration. Students are required to take an employability course during this phase and the course often includes presentations, discussions, or instruction by community and industry partners. Once students complete the course and approximately 40 percent of their Training Achievement Record (TAR), they are eligible for Phase 2. This stage typically lasts six weeks and provides students with a practical work-based learning (WBL) experience under a supervisor/mentor. Workplace Communications III, which addresses job retention skills, is required during this activity sequence.

Two placement specialists assist the STW Coordinators in developing WBL placements and monitoring student needs and progress. Decisions regarding placement are a team effort between the student, the site supervisor, the vocational instructor, and the STW Coordinator responsible for off-Center WBL experiences. Progress notes are kept as part of the record-keeping process, and are completed by students and staff. These notes are considered helpful in the post-graduate placement process.

Edison has also focused on creating an on-Center workplace environment to support its policy for high standards in placement and performance. Academic as well as vocational classrooms are designed to mirror the workplace. Behaviors inappropriate to the workplace are confronted. Many students are given work assignments within the Center where a high standard for the authenticity of the work experience is also emphasized. The creation of a "Center-wide culture of school-to-work" is a conscious endeavor of the Employability Manager and her team.

Classroom-based activities have also been developed to enhance the focus on general employability skills and to reflect other STW concepts. Phase 1 has been modified to include additional opportunities for career exploration, through the local One-Stop Career Center and Internet job search and career exploration. Also, an increased emphasis on conflict resolution and peer mediation has been incorporated into the Job Corps curriculum. Employers have joined an applied academics team (vocational and academic instructors) that meets bi-weekly. The team works to make curriculum relevant and applicable to the world of work. This opportunity is also viewed as a way to increase additional employer presentations and teaching on-Center.

STW is envisioned as the operational format for EJCC's philosophy and mission. Center staff have created a daily worksite environment that permits on-going observation and assessment of participants relative to work readiness. Moreover, the Center's integrated team approach to overall service delivery has facilitated an acceptance of STW and eased implementation. STW is positioned at a level of importance within the Center's organizational structure, enhancing the Employability Manager's ability to tackle barriers and establish procedures to incorporate STW work in all Center activities.

Edison plans to continue development of applied academics modules and to promote greater integration of academic and vocational skills instruction. Maintaining employer interest is also high on the Center's priority list in order to sustain STW as a Center-wide approach.

PROFILE FOR
ROSWELL JOB CORPS CENTER: ROSWELL, NM

Roswell has made several changes as a result of STW implementation. During the first year of STW implementation, STW funds were used to purchase new computers and software for the Center. These computers have been integrated into the classroom-based learning component, and provide students with significantly more options for learning technological and computer skills. In the second year of the grant, Roswell hired a full-time STW Coordinator, and began to make changes in the structure of the Center.

An early focus of Roswell's STW implementation was to increase work-based learning (WBL) opportunities for students. In so doing, they modified the previous work experience program in several ways. First, WBL slots must now be in the student's trade area. Second, Roswell implemented criteria for students requiring them to be 80 percent complete in their trade, to have spent 90 days on Center, including 30 good days (i.e., no write-ups), and to have completed at least 4 GED tests. Once students reach this level, academic or vocational instructors can recommend them for work-based learning. This recommendation is forwarded to the STW coordinator, who determines the availability of an appropriate site. If there is a trade-match, the vocational and academic instructors, and the student's counselor, must sign off on the recommendation, indicating that they believe the student will be able to work successfully for a few weeks with no disciplinary problems. WBL slots range in duration from one or two days (in only a few cases) to about 8 to 10 weeks.

Typically, Roswell students participate in three distinct forms of classroom training: basic skills and GED instruction, vocational training associated with their trades, and World of Work courses, which focus on the skills necessary to be successful in work environments. In addition, however, and at least in part a result of the STW initiative, some instructors have begun to develop curricula utilizing materials akin to Applied Academics. For example, the math instructor has developed several modules teaching math skills by calculating personal income or sales tax. Similarly, the reading instructor uses articles from students' trades in her curriculum. Further, the BOT vocational instructor uses forms and materials from real business occupations, allowing the students to gain basic skills in reading and writing by using tools essential to their trade.

One of the long-term goals of the Centers is to become "placement-driven." Presently, students begin the placement process as they approach the end of their stay at the Center. The placement coordinator provides students with placement assistance as they approach their graduation date by helping them write their resumes, find and apply for jobs, and by providing assistance with moving back home or to the job site. Center staff hope to begin this process much earlier. Also, to further enhance students' chances of finding higher-wage employment, Center staff members are also exploring the potential of developing greater collaboration with employers and possibly, developing customized training opportunities.

PROFILE FOR
CASSADAGA JOB CORPS CENTER:
CASSADAGA, NEW YORK

The Cassadaga Job Corps Center's (CJCC) school-to-work initiative was the second major step in a restructuring of its academic and vocational programs that has been planned and carried out in coordination with the staff of the Job Corps Regional Office based in New York City. The Regional Administrator worked with the Center Director to plan and implement an applied academics approach that restructures the nature and relationship of the academic and vocational offerings at the Center. The availability of STW funding provided an opportunity to take these activities to the next level, further refining school-based learning and greatly strengthening the work-based learning (WBL) activities.

School-to-work is now led by the Center's Workforce Development Department, which is also responsible for job placement. This location within the organization is perceived as strengthening the presence of STW in the highest levels of the Center's management. The STW Coordinator focuses primarily as a support—working closely with other staff to ensure that students are placed and retained at WBL experiences and to minimize disruption to the daily Job Corps routine. Partnerships, whether external or internal, are viewed as resources for the STW system as a whole.

The Center received funding to support the planning and construction of an applied academic building on the Job Corps campus. The floor plan for the building was designed specifically to encourage the integration of academic and vocational instruction by designing clusters consisting of two vocational areas and one applied academic classroom. These areas are adjoined so that students pass through the vocational classroom to enter the academic classroom. Under this system, the academic and two vocational instructors form a team, sharing the same students and interacting informally, since their classrooms are adjacent. These three-person teams will be responsible for the development and delivery of "thematic integrated units" (TIUs) and other approaches that incorporate academic and vocational content. Each applied academic instructor is responsible for all academic subjects. Thus, each student has two primary teachers, one academic and one vocational.

The Center also maintains a focus on providing off-Center WBL opportunities, both paid and unpaid, for as many students as possible. The scope of this effort has translated to an emphasis on improving the quality of work-based experiences, as well as developing multiple opportunities at individual worksites to minimize the transportation issues associated with moving to scale.

CJCC provides basic skills and GED preparation classes in the applied academic setting in which each student proceeds at his or her own pace. Vocational vocabulary and concepts are integrated into the presentations and written work for each student. Wherever possible, the applied academic objectives are promoted through utilization of TIUs. However, the Center recognizes that despite the creation of the "applied academics building," additional work must be done to further integrate academic and vocational instruction. With respect to vocational training, students receive vocational training in carpentry, nursing assistance, food service office skills, painting, building and apartment maintenance, and plumbing. The vocational curriculum, in addition to meeting Job Corps standards, includes criteria that are closely linked to STW concepts. Students are also expected to master interpersonal and general work maturity skills such as getting to work on time, following directions, getting along with co-workers and so forth.

The STW Coordinator position has been incorporated into the regular Center budget. Moreover, the off-Center WBL opportunities, which are developed and monitored by the STW Coordinator, are considered regular, permanent elements of Center operations. The innovative applied academics strategy, with its building designed to support this function, also contributes to overall sustainability. There is widespread understanding that STW is a "framework for learning beyond traditional classrooms and is composed of school-based learning *and* work-based learning *and* connecting activities."

The Center considers its efforts to implement school-to-work as a continuing "work in progress," a series of efforts that may take many more years to be fully completed. Center staff plan to devote more time to the issue of the appropriate time to start preparing students for the workforce and the proportion of students who could benefit from WBL experiences. Data indicating that every student participating in a STW/WBL internship has been successfully placed at the end of his or her Job Corps experience has helped garner overall Center support for the WBL component of the initiative.

PROFILE FOR
OCONALUFTEE CIVILIAN CONSERVATION
JOB CORPS CENTER: CHEROKEE, NC

The Oconaluftee Job Corps Center's Vocational Training Unit manages the STW initiative, which is viewed as an essential element of their vocational training approach. Therefore, all students are considered 'participants' in STW. The STW initiative emphasizes work-based learning (WBL) through the following activities:

- WBL activities that emphasize general work readiness skills. The Center often places students at non-profit worksites as a first WBL assignment before placing them in paid WBL experiences.
- WBL activities off-campus, usually with a private sector establishment.
- WBL activities off-campus, but supervised by a Job Corps instructor. This form of WBL is incorporated into the Health Occupations vocational training.
- Project-based learning (PBL) activities on-campus, such as the Vocational Skills Training (VST) projects, which take the form of "simulated work sites."

When students are placed in their first off-campus WBL activity with non-profit organizations, they typically participate in WBL for one week and attend vocational and academic classes in alternate weeks. The sequence and structure of subsequent WBL experiences vary depending on the student's vocational area. For example, students in construction trades are likely to join a work crew engaged in a vocational skills training project once the instructor considers the student ready. Also, Health Occupations Training work assignments are an integral part of the state-certified program of instruction and reflect a highly coordinated and structured WBL sequence.

Academic instruction at the Oconaluftee Center is organized into one-hour blocks, much like high school. Students can take classes in the academic area where they are most deficient, or select a combination of classes that fits best with their employment plan.

Vocational instruction generally includes hands-on, project-based activities. In some trades, the project-based learning approach is considered a "pre-apprenticeship" that eases graduating students into trade apprenticeship programs. Instruction of academic skills is sometimes incorporated into vocational classes. For example, basic math skills have been taught "in the field" at simulated construction work sites on-campus.

The Center was without a Director for a large portion of the implementation period, which constrained the development and evolution of the STW initiative and raises concerns about sustainability. WBL activities, relationships with employers, and closer community ties, however, continue to be developed and are likely to endure.

The STW Coordinator position is currently supported through general operating funds. Additionally, the Center maintains its objectives to revise academic curricula and develop more off-campus WBL work sites that provide a greater variety and number of work-based-learning opportunities representing more levels of the vocational areas being taught. The Center would also like to enhance the Social Skills Training (SST) component, perhaps through greater integration with academic and vocational instruction.

PROFILE FOR
KITTRELL JOB CORPS CENTER: KITTRELL, NC

Kittrell Job Corps Center (KJCC) sees STW as building on the Center's strengths "to develop a comprehensive program that will prepare students for further education and high-skilled jobs that offer long-term, stable employment, high wages, and career advancement." Kittrell began their STW initiative by expanding opportunities for students to participate in work-based learning activities. The STW Coordinator reports to the Educational Services Director.

Kittrell's STW initiative includes two broad phases, as outlined below.

- ***Phase one*** consists of *school-based learning* (participation in applied academic modules on Center or through classes at the community college), up to 80 hours of *work-based learning*, (WBL) usually on Center, and *connecting activities*. Opportunities for on-Center WBL have increased as a result of the STW initiative. Students proceed at their own pace as they earn increasing levels of responsibility. Interpersonal, social, and leadership skills are integral to this growth. Thus, the Center emphasizes that "a social skill is associated with every competency an employee needs." Responsibility for teaching weekly employability skills classes rotates among different Kittrell instructors. Also, World of Work classes provide students with opportunities for career exploration and reinforce employability skills. Kittrell uses the SCANS skills inventory to assess skills at admission and during the program.
- In ***Phase two***, students work with employers off Center, who customize WBL (with the STW Coordinator, instructors, and counseling staff). Students face more demands and an increased level of responsibility in Phase two: they are responsible for their own time–signing in and out, arranging their own lunches, etc. Some students get paid for their WBL internship. Because getting paid enhances a students' sense of professionalism and enables them to save some money while preparing for their real entry into a career, Kittrell is working to get all students paid at some point in Phase two.

Students must meet certain eligibility requirements in order to participate in WBL activities. They must be in good standing and they should have completed at least 35 to 40 percent of their vocational training. Vocational instructors recommend students to the STW Coordinator, and the Coordinator then reviews the student's records and forwards the nomination to relevant counselors and the academic and vocational managers.

The number of potential WBL sites has increased over the course of the implementation period, as has the level of employer involvement. Employers donate their time, materials, and equipment to the Center to enhance training opportunities. Vocational and academic instructors appear to work effectively together, illustrated by the Center's "Adopt-a-Trade" initiative. About fifty Center staff rotate their involvement to interact and mentor students who are interested in occupations similar to those of staff. This provides students with opportunities to become involved in their area of career interest and learn about all aspects of a trade.

The STW Coordinator position has been institutionalized and STW costs have become part of the Center's operating budget. As well, KJCC used a part of their modernization funds to renovate classrooms to be more like worksites, involving students from the start in planning and design. These actions indicate a commitment to sustaining STW at the Center. Additionally, both vocational and academic instructors are involved in hands-on projects that result in finished products and there is widespread staff participation in assisting with transporting students to worksites. Leadership emphasizes integrating STW principles and practices; the Director has instructed staff to help out with the initiative whenever necessary and possible. Also, students have become more interested in participating in STW activities, and view STW as a long-term investment in their own career and personal development.

PROFILE FOR DAYTON JOB CORPS CENTER:
DAYTON, OH

The Dayton Job Corps Center has located its school-to-work (STW) initiative within the Vocational Department. The STW Coordinator reports directly to the Vocational Manager. The focus of Dayton's efforts has been on community outreach and job development. The STW initiative at Dayton replaced the existing Vocational Linkage program that started in 1994. The focus of the Vocational Linkage program had been to (1) provide on-the-job training, and (2) transition students into permanent employment. STW has expanded this work-based component in order to place a higher percentage of students into WBL job assignments, and ensure that all WBL placements are paid. Case management for students placed in off-site employment is handled through a team approach. Together, the vocational instructor and a counselor are responsible for monitoring youth progress on the work site and ensuring that he or she is still meeting their on-Center obligations.

Strengthening external partnerships has been a major focus of the Dayton Job Corps STW initiative. External partners include employers, community-based organizations, and local workforce development agencies. As part of these efforts, the Dayton Job Corps Center has become an affiliate One-Stop location. However, the deepest external partnerships have been formed between vocational instructors and work-site supervisors. Vocational instructors and work-site supervisors have worked together to expand the Training Achievement Record (TAR). In addition, worksite supervisors have encouraged the vocational instructors to "teach beyond the TAR" by teaching cutting-edge skills that will earn graduates a higher wage in the workforce.

Internal partnerships have been a minor focus of the Dayton STW initiative thus far. Academic teachers are encouraged to visit vocational classes and help as necessary. Similarly, vocational instructors are encouraged to help academic teachers by dropping in and giving real life context to academic instruction. Dayton JCC has asked their contractor for funds to "buy" teacher time so that ultimately, vocational and academic staff can meet regularly to improve the integration of academic and vocational instruction. The lack of planning time has made even informal collaboration between instructors difficult.

Dayton Job Corps Center has not permanently funded their STW position. Instead, the Center is shifting the responsibility for employer linkages to vocational instructors, while the Business Community Liaison (BCL) will focus on developing other external partnerships. Plans for the future include the creation of an applied curriculum for both the academic and vocational department. However, sustainability will depend on the level of communication between vocational instructors, counselors, BCL, and placement staff.

PROFILE FOR
TULSA JOB CORPS CENTER: TULSA, OK

Work-based learning (WBL) activities are a primary focus of STW activities at the Tulsa Center. The Center's STW coordinator is responsible for developing and cultivating relations with employers who are interested in providing WBL opportunities to the Center's students. The STW coordinator meets with work supervisors to review student training achievement records (TARs) and to plan work-based learning around students' existing competencies. The STW coordinator and work supervisors also discuss their expectations for each student's development over the period of the WBL assignment, which typically lasts 4-6 weeks. Staff at the Tulsa Center view the expansion of WBL as important because they believe that work experience increases students' chances for finding suitable employment after leaving the Center.

Although Tulsa staff and students have thus far primarily focused on work-based activities, the Center has also made strides in developing a program of applied academic instruction, which was begun at the Center in 1997. During the early design phase of the applied academics program, academic and vocational managers and staff relied on a number of informal partnerships outside the Center. In particular, they drew on the experiences of colleagues in the public school system. When applied academics was being introduced, teachers had little time for joint planning, although most agreed that the concept was good. As a remedy for this problem, Center staff instituted Thursday luncheons, which are hosted by the culinary arts program. Nearly all academic and vocational instructors attend these luncheons and use this time for developing integrated curriculum and lesson plans. Currently, academic instructors also work with trade instructors on an as-needed basis to design lesson plans for individual students who are experiencing particular difficulties.

Outreach staff at the Tulsa Center have developed a working relationship with a number of community partners. Young mothers, for example, are referred from TANF and WIC programs as well as local churches. These partners also assist with childcare for dependent children of Job Corps students. Outreach staff also meet on a regular basis with high school counselors, particularly those in low-income areas who refer students with a high risk of dropout due to factors such as parent abandonment, low school grades, and attendance and behavioral problems.

With respect to sustainability of the STW initiative, the Tulsa JCC has continued the STW Coordinator position as a part-time position at the Center. The STW Coordinator also serves as the Leisure-time Employment Program Coordinator and the Equal Opportunity Officer.

Potential future plans for the STW initiative at Tulsa include the development of a hometown-based WBL component, and possibly, the creation of four different "tech Centers." Each "tech Center" would include vocational instructors, academic instructors, counselors, and employability coordinators—working with students as a team.

PROFILE FOR:
TONGUE POINT JOB CORPS CENTER: ASTORIA, OR

The early focus at Tongue Point was to enhance and expand the previous work experience activities into new, work-based learning (WBL) opportunities for students. The WBL slots consist of on- or off-Center work assignments. WBL differs from the former work experience slots in at least three ways: 1) these slots always must be related directly to the student's vocation, 2) students must complete one of two levels of proficiency in their vocation prior to becoming eligible for a WBL slot, and 3) the positions allow students to gain competencies associated with their TAR.

The two levels of WBL proficiency are, for Level I, students must be 50 percent complete in their trade and able to demonstrate sufficient social skills to hold a position and, for Level II, students must be 80 percent complete in their trade. For both levels, students must be recommended to WBL by one of their instructors. This recommendation is sent to the STW coordinator and, if there is an appropriate site, is signed off by the student's academic and vocational instructors if they believe the student has suitable social skills, and has demonstrated good behavior at the Center. WBL positions for Level II students are generally more complex tasks, and sometimes offer wages in addition to the experience. Despite these levels, however, all students are considered to be STW students; prior to receiving a WBL, students are seen as engaged in school-based learning (SBL). At any one time, approximately 50 students (of approximately 530 total) are on WBL assignments.

Additionally, Tongue Point has developed, as part of its STW initiative, several home-based WBL sites. These sites allow students to secure WBL positions in their home cities, providing two specific advantages for Tongue Point. First, there is a scarcity of employment opportunities in Astoria, and those that are available often are seasonal; home-based sites alleviate this scarcity by opening up larger metropolitan areas to students. Second, students often return to their home cities after leaving Job Corps. Thus, home-based sites provide a network to draw upon in finding permanent employment (or, in some cases, the home-based sites offer a job to the student).

In part because of the new Job Corps performance requirements, Tongue Point Center management is looking for ways to develop strengthened relations with employers. The Center hopes to develop a reciprocal relation with employers by providing customized training and also by having employers train Job Corps students at their sites.

Although the early STW emphasis was on developing work-based learning opportunities for students, most Tongue Point staff view STW as a broad-based initiative with an impact on nearly every phase of Center operations. In the words of the Center director, STW is something that "should be integrated into the entire fabric of Center operations."

Since the beginning of the STW initiative, the Tongue Point Job Corps Center has placed a strong emphasis on preparing students for employment. Staff emphasize building not only occupationally-specific skills, but also the SCANS and other soft skills required for success at the work place. As a result, the emphasis at Tongue Point has shifted somewhat from basic skills remediation combined with occupationally specific skills to a more holistic concept of promoting *employability* as a key outcome. As an example of this approach, students at this Center are referred to as "student-employees." All students keep timecards in the same way that employees do and the student disciplinary system is modeled after the operating corporation's human resource regulations. Moreover, several departments, including the academic department, have been merged to create an employability skills department. Even prior to this merger, the former academic program had also begun a move away from what some staff termed a "school house" approach, toward one that they believed better prepared students for the workplace. Over the past two years, these changes in academic instruction include the following:

- A move away from a focus on GED completion for most students toward a more individualized assessment of student academic needs and aspirations.
- Changes in the academic curriculum that replace the individual "learning lab" approach to math and English instruction with a group learning approach.
- Replacing "seat-time" as a measure of academic attainment in the high school program to an outcomes-based assessment system.
- The establishment of a computerized applied academic Center.

Several other changes have been made as a result of STW efforts. For example, two new courses have been added. A customer service course focuses on the proper ways to interact with clients, focusing on interpersonal, communication, and presentation skills. Also, in response to the demands of the electrical vocational instructors, Tongue Point now offers an algebra course, focusing on skills necessary for the electrical trade. Additionally, some instructors have begun to develop examples of Project-Based Learning, integrating examples from trades and vocations into their basic skills curricula. As an example of this, the math instructor has developed a project in which students from landscaping must calculate the amount and cost of a mulch order for a project.

PROFILE FOR
ANGELL JOB CORPS CENTER: YACHATS, OR

During the first year of implementation most of the STW efforts focused on establishing employer linkages for work-based learning. During the second year, as part of the Center's training plan, more emphasis was placed on establishing linkages with other agencies with a stake in developing STW. As a result of these efforts, the Center has developed a relatively strong base of employer sites within the context of relatively adverse local economic conditions. Similarly, the STW coordinator has been instrumental in developing a collaborative relationship with important community partners such as the school district and the community college.

At Angell, completion of work-based learning (WBL) is now included as a requirement for Center graduation. This Center has different criteria to be an *Angell* graduate, as opposed to being a *Job Corps* graduate. Therefore, someone may complete the program, and be counted as a graduate for national statistical purposes, but will not have the distinction of being an Angell graduate. For example, someone must complete their trade *or* GED and be signed off on employability in their TARs to be considered a Job Corps graduate. To be an Angell graduate, however, a student must complete the following: the relevant vocational TAR; 80 percent or 40 social skills lessons; a GED or a high school diploma; a drivers license; CPR and first aid; the exit World of Work program; 210 days in the program; and work-based learning.

With respect to connecting activities, the Center has established "pods," with each pod consisting of vocational instructors from two trades, one academic instructor, and representatives from residential living and administration. Although this approach was not as successful as the Center had hoped it would be, the pods continue to meet 45 minutes each week and are charged with developing applied academics modules that integrate academics and vocations. Other connecting activities include teacher job-shadows for academic and vocational instructors. On one occasion, the STW Coordinator arranged for a number of academic instructors to go with the painting instructor to the union hall. Prior to this, most of the academic instructors had never been involved with, or had any knowledge of, union activities and programs. This activity, which was linked to the pods mentioned above, helped instructors understand the role of the union for their painting students.

In terms of work-based learning, Angell has developed a combination of job shadowing and internships. Typically, job shadowing occurs when students request an opportunity to spend a day at a worksite, as a way of learning more about their trade. Internships are conceived both as a way for students to gain a taste of work life in the "real world," but are also always designed with explicit training objectives in mind. Thus, work supervisors are familiar with the TARs and with the student's prior progress in mastering vocational competencies in the classroom. To be eligible for a worksite placement, a student must have attained what are deemed the minimal levels of academic and vocational skills appropriate for the student's designated job duties and also possess appropriate levels of work maturity. Arguably also a part of work-based learning, many students do volunteer work in the community in areas relating to their trades, but this effort is not formally tied to the STW initiative.

The Angell JCC plans to sustain and continue to develop their STW initiative. The STW Coordinator will continue in this capacity, and will also serve as the Center's Business Community Liaison. Additionally, the STW Coordinator has been closely involved in local planning and implementation of the Workforce Investment Act, and will represent Job Corps on the new local Youth Council.

PROFILE FOR
PHILADELPHIA JOB CORPS CENTER:
PHILADELPHIA, PA

The School-to-Work initiative at the Philadelphia Job Corps Center consists of three components: classroom-based learning, connecting activities and work-based learning. Classroom-based learning includes efforts to incorporate vocational concepts into basic academic skills instruction, as well as project based learning activities. Connecting activities include involving employers and other community partners in Job Corps operations through their participation in Philadelphia's Vocational Advisory Council and Community Relations Committee. Work-based activities include on-Center and off-Center job shadowing, mentoring, and paid or unpaid internships.

The School-to-Work initiative is intended to provide all students with "real world" situations wherein general workplace competencies and vocational skills necessary for permanent employment will be reinforced. Students experience this most forcefully through work-based learning (WBL) activities. Work-based activities include off-Center and on-Center job shadowing and internships. Work-based placements, both off-site and on-site, are made based upon the specific needs and experience of the student. At any given time, 30 – 40 students participate in work-based learning—a mixture of paid and unpaid WBL job assignments.

Although all students participate in the classroom-based activities mentioned above, only those students meeting certain eligibility requirements participate in WBL activities. Students must satisfactorily complete the STW application form, and they must fulfill a variety of eligibility criteria. Before they can be placed in WBL, students must have completed the first level of their vocational training and been enrolled as a Job Corps student for a minimum of 180 days. Students must also demonstrate strong work-maturity skills. Ultimately, a selection committee determines whether a student is ready for placement in WBL. Vocational instructors nominate students for WBL once they have achieved the appropriate trade specific skill level.

Short-term goals for the STW initiative include: (1) fully integrating STW concepts in all academic curricula and vocational education curricula, (2) creating opportunities for more students to participate in work-based learning activities, (3) continue to strengthen connections between classroom and work based activities, and (4) establishing formal connections with the local school-to-work consortium and the state school-to-work initiative.

The STW Coordinator position has been fully funded and integrated into Center operations. Information about STW is presented at monthly staff meetings and included in the Center newsletter, keeping STW in the spotlight at the Center. Additionally, STW is a permanent agenda item at weekly senior staff meetings, where staff review progress made toward achieving STW goals and objectives, and appropriate recommendations and/or adjustments are made. Another indication that the initiative will be sustained is that Center staff members are undertaking an assessment to identify areas of the STW effort that need improvement.

PROFILE FOR
BARRANQUITAS JOB CORPS CENTER: BARRANQUITAS, PR

The Barranquitas Job Center is relatively small, with about 260 students, many of whom come from single-parent households. Approximately 60 percent of the students entering the Center have not completed high school. Because of the relatively homogeneous nature of Puerto Rico, there is much less cultural diversity at the Barranquitas Center than there is at most U.S. mainland Centers. Although students generally come from lower socio-economic groups, gang influence on Center participants has never surfaced as a problem, and there are relatively few disciplinary problems at Barranquitas compared with some mainland Centers.

Staff at the Barranquitas Center refer to school-to-work as an initiative with both work-based and school-based learning components. Job shadowing, which is designed to familiarize students with worksite demands, is available to students during their orientation phase. The Center also offers more in-depth WBL internships. Vocational instructors refer students for extended work-based learning (WBL) activities with employers, and students must be at least 40 percent complete with their trade to participate. The School-to-Work Coordinator works with about 40 students in work-based learning activities at any given time, making arrangements with work-site supervisors and ensuring that necessary contracts are signed. The student and the student's parents sign the contract with the employer to reflect their acknowledgement of work site requirements. The STW Coordinator also maintains close communication with each student's vocational instructor throughout the student's work-based learning experience.

Because of difficulties in providing class coverage, academic and vocational instructors do not currently team-teach. However, academic and vocational instructors are in the process of revising curricula to better reflect STW and applied academic goals. These instructors often base lesson plans on the variety of Spanish-language materials that are related to vocations. For example, each language instructor has lists of vocabulary (in both Spanish and English) that are specific to each trade, and can use these words in developing lesson plans. Similarly, mathematics instructors use examples of measurement problems specific to trades. During their afternoon planning time, academic instructors work on an as-needed basis with vocational instructors to develop integrated lesson plans in trades such as building and apartment maintenance, upholstery, cement masonry, and electricity.

PROFILE FOR
DAVID L. CARRASCO JOB CORPS CENTER: EL PASO, TX

The STW initiative at the Carrasco Job Corps Center is notable for the strong and active role played by employers. The Center works with a wide network of employers in the community (presently over 100), who play a wide range of roles. For example, some employers come to the Center to give demonstrations or training to students and instructors; others lend or donate specialized equipment pertaining to a trade; still others provide work slots for student internships. Reflecting the fact that Carrasco views internships as real learning opportunities, employers are regarded as instructors. Although they do not have authority to sign-off competencies on a student's vocational Training Achievement Record (TAR) on their own, the worksite supervisors do meet with vocational instructors frequently (about every two weeks) to discuss the students' progress as well as particular skills that have been mastered at the job site.

Building on these strong relationships with employers, the Center has developed numerous work-based learning opportunities for students. All students are required to participate in at least one STW internship and log at least 250 hours at one or more worksites for work-based learning. In meeting the 250-hour requirement, most students will go out on several different work assignments throughout the course of their stay on Center. Typically the first assignment occurs fairly early in the student's tenure at the Center (e.g., after the student has been on Center for about three months) and might last several weeks. Thereafter, students intersperse periods where they are on Center in class-based activities exclusively, with subsequent internships. Students could be sent out to the same worksite while completing their WBL requirement or, more likely, they are placed in a variety of different worksites.

As part of its effort to link classroom and work-based learning, Carrasco encourages employers to come on Center to give seminars, and, conversely, vocational instructors visit worksites periodically and attend clinics sponsored by industry. Academic instructors have also visited worksites, although this does not occur very frequently.

The Carrasco JCC plans to sustain their STW initiative, and has replaced the former WEP Specialist position with the STW Coordinator position. Thus, the STW Coordinator position has become a permanent part of the Center's operating budget. Future plans for the STW initiative may include instituting planning periods for academic instructors, so that they can improve coordination with vocational instruction.

PROFILE FOR
GARY JOB CORPS CENTER: SAN MARCOS, TEXAS

The Gary Job Corps Center's current school-to-work initiative places a strong emphasis on work-based learning (WBL). Until recently, there were two separate programs that enabled Gary students to gain hands-on experience at work sites. These were the work experience program (WEP) and the STW program. Each program had separate coordinators until the departure of the work experience coordinator in late 1998. The STW coordinator assumed responsibility for both of these programs until mid-1999, when the work experience program was discontinued. One major difference between STW and work experience is that, under the STW program, employers provide work-based learning opportunities to students at various stages during their training. The work experience program, in contrast, used to take place only after a student had completed training and occurred just prior to graduation from the Center. At any given time, about 50 to 100 of Gary's approximately 1,900 students participate in WBL under the Center's school-to-work program.

The Gary Center also has a long history of combining academic and vocational learning. Gary was the first Center in the country to adopt a "cluster" system. In 1983, the Center had one division charged with vocational and academic instruction, called the Education and Training Division. Under the cluster system, vocations were combined into seven clusters, and each cluster manager oversaw a team of both academic (reading and math) and vocational teachers. This system allowed for ample opportunity for contact and coordination among vocational and academic instructors.

Although the cluster system was replaced four years ago by a division system that separated academic and vocational instruction, the Center does continue to have an applied academics program. Generally, there are three applied academic instructors, including a mathematics teacher, an English teacher, and a "team-building" teacher. The applied math and English instructors team-teach with the vocational instructor in each vocational class on a rotating basis. As a result, both of these instructors visit every vocational class approximately every forty days. The team-building instructor teaches an academics course that is tailored to individual trades and emphasizes the development of teamwork skills.

The Gary Center also provides students with off-Center academic opportunities. Gary students can obtain a high school diploma from the local alternative high school, which is called the Academic Pride Center. In addition, a college program has placed more than 60 students in two-year programs.

With respect to sustainability of the STW initiative, the STW Coordinator position has become a permanent position at the Center and has replaced the WEP Coordinator position, as mentioned above. In addition to continuing to develop and implement the WBL and applied academics activities that have been a part of the STW initiative at Gary JCC, the Center is also considering instituting a new course focusing on job readiness and job retention skills.

PROFILE FOR
COLUMBIA BASIN CIVILIAN CONSERVATION JOB CORPS
CENTER: MOSES LAKE, WA

Columbia Basin Job Corps Center's school-to-work initiative has focused primarily on employer outreach and the development of increased work-based learning (WBL) opportunities. Over the last two years, the Center has expanded its network of employers through increased outreach and the production and dissemination of marketing materials. Originally, Columbia Basin tried to place students that were at very early stages of vocational Training Achievement Record (TAR) completion into WBL positions. However, the Center encountered challenges that made them reconsider this approach. First, they found that many students placed early in their training tarnished Job Corps' reputation with employers, by "walking out" on employers or not showing up to work. Second, they found that few work-site supervisors were interested in investing the time necessary to work with students on TAR skills. Third, STW students would sometimes ignore their on-Center responsibilities and/or abandon Job Corps training for a full-time job.

Columbia Basin took two steps to address the challenges described above. First, they made their STW selection criteria more rigorous and defined STW as "a privilege, not a right." Thus, STW participants must have (1) finished the educational component of the program (by receiving their GED or high school diploma), (2) completed at least 75 percent of their TAR, and (3) demonstrated strong social skills, as reflected by their status as a "silver" or "gold" card holder in the Center's color-coded behavior system. Second, the Center developed a mandatory savings account for students who were placed in paid WBL positions, to be drawn out when students leave the Center, so that students would not "feel rich" and take off with their discretionary income. This program was working fairly well at the end of the first year, with a relatively high proportion of student placed in WBL during the summer months. However, by the second year, staff turnover in the STW coordinator position, coupled with competing staff priorities, had resulted in a significant decrease in the development of off-site employment opportunities. At this point worksites were limited to clinical nursing rotations and "home-based" school-to-work, where students who have completed their training are placed in a transitional job with the promise that they can return to Columbia Basin JCC if they are in need of more training.

In an effort to link academic and vocational content, Columbia Job Corps Center created two distinct sets of worksheets for use with the CMI-driven basic skills and vocational curriculum. The Center has developed an "integrated curriculum," which draws on trade related content, for use in their academic classes. These worksheets were developed by the academic instructors and reviewed by vocational instructors. However, the "integrated curriculum" is used infrequently in academic classes, primarily because the integrated content is not seen by instructors as being that helpful in moving youth towards basic skills and GED attainment. The vocations, on the other hand, use what is described as "applied curriculum" to cover the trade specific information that is required for students to complete their TAR. Although efforts have been made by the Center for academic instructors to visit the vocations in order to introduce applied academic concepts, scheduling conflicts have limited the extent of this type of collaboration.

Columbia Basin JCC has developed linkages with the local Grant County School-to-Work consortium. Columbia Basin JCC contributed $2,500 to the Grant County STW consortium in order to support the development of a database of local employers who are willing to place youth into jobs, provide mentors, conduct mock-interviews, and so forth. This database had yet to be completed during our last site visit. Once completed, the database will be an invaluable tool as Columbia Basin JCC seeks to expand its network of employers offering WBL opportunities.

Columbia Basin has permanently funded the STW coordinator position. Key stakeholders at the Center believe that having a full time position is essential to the sustainability of STW on-Center. In the future, Columbia Basin hopes to re-develop employer linkages, expand the role of employers to include more training and student mentorship, further incorporate SCANS and employability skills into all of their academic and vocational training, and further develop the role of Employability Review (ER) panels in monitoring the progress of STW placements.

BIBLIOGRAPHY

Anderson, John, Lynne Reder, and Herbert Simon. 1998. "Radical constructivism and cognitive psychology." Pp. 227-278 in Ravitch (ed) *Brookings Papers on Education Policy*. Washington, D.C.: Brookings Institution.

Bailey, Thomas. 1995. "The integration of work and school: education and the changing workforce." In Grubb (ed) *Education Through Occupations in American High Schools, Vol. I: Approaches to Integrating Academic and Vocational Education*. New York: Teachers College Press

Becker, Brian and Stephen Hills. 1980. "Teenage unemployment: some evidence of the long-run effects on wages." *Journal of Human Resources* 15 (Summer): 354-371.

Becker, Brian and Stephen Hills. 1983. "The long-run effects of job changes and unemployment among male teenagers." *Journal of Human Resources* 17 (Spring): 197-212.

D'Amico, Ronald and Nan Maxwell. 1994. "The impact of post-school joblessness on male black-white wage differentials." *Industrial Relations* 33 (April): 184-203.

Dewey, John. 1916 (1977). *Democracy and Education: An Introduction to the Philosophy of Education*. New York: Free Press.

Ellwood, David. 1982. "Teenage unemployment: permanent scars or temporary blemishes." Pp. 249-390 in Freeman and Wise (eds.) *The Youth Labor Market Problem: Its Nature, Causes, and Consequences*. Chicago: Univ of Chicago Press.

Glover, Robert and Christopher King. 1997. "Net impact evaluation of school-to-work: desirable but feasible?" In U.S. Department of Labor, *Evaluating the Net Impact of School-to-Work: Proceedings of a Roundtable*. Washington, D.C.: U.S. Government Printing Office.

Hamilton, M.A. and S. Hamilton. 1997. "When is work a learning experience?" *Phi Delta Kappan* 78 (9).

Johnston, William and Arnold Packer. 1987. *Workforce 2000: Work and Workers for the Twenty-First Century*. Indianapolis, IN: Hudson Institute.

Kemple, James. 1997. *Career Academies: Communities of Support for Students and Teachers*. Manpower Demonstration Research Corporation.

Lynch, L. M. 1989. "The youth labor market in the eighties: determinants of re-employment probabilities for young men and women." *Review of Economics and Statistics 71* (Feb): 37-45.

Mincy, Ronald. 1994. *Nurturing Young Black Males*. The Urban Institute.

Osterman, Paul. 1980. *Getting Started*. Cambridge: MIT Press.

Pauly, Edward, Hilary Kopp, and Joshua Haimson. 1995. *Home-Grown Lessons: Innovative Programs Linking School and Work*. San Francisco: Jossey-Bass.

Raizen, S. A. 1989. *Reforming Education for Work: A Cognitive Science Perspective*. Berkeley, CA: National Center for Research in Vocational Education, UC Berkeley

Resnick, L. B. 1987. "Learning in school and out." Educational Researcher 16: 13-20.

Ryan, Dan. 1997. "Introduction: School-to-work and school-to-work evaluation and research" In U.S. Department of Labor, *Evaluating the Net Impact of School-to-Work: Proceedings of a Roundtable*. Washington, D.C.: U.S. Government Printing Office.

Johnson, Terry, Mark Gritz, Russell Jackson, John Burghardt, Carol Boussy, Jan Leonard, Carlyn Orians. 1999. *National Job Corps Study: Report on the Process Analysis*. Seattle, WA: Batelle Human Affairs Research Center.

U.S. Department of Labor. 1991. *What Work Requires of Schools: A SCANS Report for America 2000*. Washington, D.C.: U.S. Government Printing Office.

William T. Grant Foundation on Work, Families and Children. 1988. *The Forgotten Half: Pathways to Success for America's Youth and Young Families*. Washington, D.C.: William T. Grant Foundation.

U.S. Department of Labor
Employment and Training Administration
200 Constitution Avenue, N.W.
Washington, D.C. 20210

Official Business
Penalty for Private Use, $300

FIRST CLASS MAIL

Postage and Fees Paid
U.S. Department of Labor
Permit No. G-755

BEST COPY AVAILABLE